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REGULATIONS

OF THE

EDUCATION DEPARTMENT

OF THE

PROVINCE OF ONTARIO

APPROVED BY THE EDUCATION DEPARTMENT, AUGUST, 1904.

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

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The Regulations have been amended since 1904 and, therefore, in addition to the enclosed, reference should be made to

Circular 2. Courses for Commercial and Art Specialists.

“ 12. Approved High, Public and Separate Schools and Continuation Classes.

“ 13. Agriculture and Horticulture and School Gardens.

“ 19. Graduation diplomas.

Entrance examinations to the Faculty of Education and the Normal and Model Schools, Examining Boards.

“ 33. Accommodation and equipment of Rural Public and Separate Schools.

“ 37. Regulations for Reorganization of Continuation Classes.

“ 47. Equipment for Agricultural Departments in High Schools.

“ 47½. Course of Study “ “ “ “

Instruction No. 11. Advisory Council of Education.

“ “ 12. Distribution of Legislative Grant, Rural, Public and Separate Schools, Organized Counties.

“ “ 13. Distribution of Legislative Grant, Rural, Public and Separate Schools, Districts.

Also Normal School Courses, etc.

Faculty of Education Courses, etc.

Public and Separate School Courses, etc.

REGULATIONS
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PUBLIC SCHOOLS.

SITES AND SCHOOL HOUSES.

4. Where the average attendance of any section for three years exceeds fifty pupils, a school house with two rooms shall be provided. An additional room and teacher shall be required for each additional fifty pupils in average attendance. Every school house shall afford separate entrances with covered porches and suitable cloak-rooms for boys and girls.

11.—(1) The first Friday in May each year shall in rural school sections and in incorporated villages be devoted to planting shade trees, making flower beds, and otherwise beautifying and improving the school grounds. Songs and recitations designed to cultivate greater interest in trees and flowers and in the study of nature shall form part of the exercises for the day.

(2) Empire Day, the first school day before the 24th of May, shall be duly celebrated in each school. The forenoon is to be devoted to a study of the greatness of the British Empire and the afternoon to public addresses, recitations, music, etc., of a patriotic character.

DUTIES OF PUPILS.

12. Every pupil registered in a Public School shall attend punctually and regularly every day of the school year in which his name is so registered. He shall be neat and cleanly in his person and habits, diligent in his studies, kind and courteous to his fellow pupils, obedient and respectful to his teacher, and shall submit to such discipline as would be exercised by a kind, firm, and judicious parent.

13. Every pupil on returning to school after absence from any cause shall give orally or in writing to the teacher, a proper reason

for his absence. A pupil may retire from school at any hour during the day at the request, either oral or written, of his parent or guardian. A pupil may be suspended who fails or neglects to provide himself with the text-books or other supplies required in his course of study, or to pay the fees imposed for such purpose by the trustees.

14. Every pupil shall be responsible to the teacher for his conduct on the school premises or on the way to or from school, except when accompanied by his parents or guardian or by some person appointed by them on their behalf. Any pupil who injures or destroys school property or furniture may be suspended until the property or furniture destroyed or injured is made good by the parent or guardian of such pupil.

SCHOOL TERMS AND ORGANIZATION.

15. Unless otherwise directed by the Trustees, the pupils attending every Public School shall assemble for study at nine o'clock in the forenoon, and shall be dismissed not later than four o'clock in the afternoon. One hour at least shall be allowed for recreation at mid-day, and ten minutes during the forenoon and afternoon terms, but in no case shall the hours of study be less than five hours per day including the recess in the forenoon and afternoon, provided always the Trustees may reduce the hours of study for the pupils in the First and Second Forms.

16. Pupils not registered in a Day School may attend a Night School from the 1st of October until the 31st of March. The hours of study in the Night School shall not exceed $2\frac{1}{2}$ hours per session. Pupils shall not be admitted to a Night School who are under fourteen years of age or who attend school during the day. Night Schools shall be subject to the same regulations as Public Schools, with respect to the discipline of pupils, the duties and qualifications of teachers, and the use of text-books.

17.—(1) The course of study for Public Schools shall be taken up in five Forms as hereinafter set forth, and pupils shall be classified by the teacher with respect to their attainments in all the subjects of the Form to which they are assigned or from which they are to be promoted.

(2) The amount of time to be given to any class is to be determined by the teacher, who shall be guided in this matter by the Inspector.

(3) Pupils who have passed the High School Entrance examination and such other pupils as are considered qualified by the teacher and Inspector shall be entitled in both rural and urban schools to receive instruction in the subjects of the Fifth Form, provided that, in a municipality having a High School, if resident pupils of the High School are not charged fees for the first year, it will not be deemed obligatory for the Public School Board to have a Fifth class.

18.—(1) All the subjects prescribed for Forms I.-IV. of the Public School course are obligatory, except where otherwise specified in the programme of studies. No deviation from this rule is permissible

without the concurrence of the Inspector, who shall also decide as to the optional subjects.

(2) The following subjects of the Fifth Form course of study are obligatory: Reading, Literature, Grammar, Composition, History, Geography, Writing, Arithmetic and Mensuration, and Elementary Science. From the other subjects of this Form, Boards of Trustees may select, with the concurrence of the Inspector, such subjects or such parts of the courses therein, as may, in their judgment, suit the requirements of their localities.

(3) When, from any cause, teachers properly prepared to teach the courses in Art, Constructive work, Clay Modelling, Elementary Science, and Nature Study are not available, the Inspector shall authorize such modifications of the courses in these subjects as he may deem expedient.

(4) Classes in Latin, Greek, French or German may be provided in Fifth Forms or Continuation Classes, with the concurrence of the Inspector, and with a time-table approved by him. Teachers of these subjects shall hold at least a Second Class certificate and have passed a Departmental or a University examination in the language they undertake to teach.

19. In school sections where the French or the German language prevails, the Trustees may, in addition to the course of study prescribed for Public Schools, require instruction to be given in Reading, Grammar, and Composition to such pupils as are directed by their parents or guardians to study either of these languages, and in all such cases the authorized text-books in French and German shall be used. But nothing herein contained shall be construed to mean that any of the text-books prescribed for Public Schools shall be set aside because of the use of the authorized text-books in French and German.

PROGRAMME OF STUDIES.

22. Subject to any instructions issued by the Minister of Education from time to time, the requirements of each Form in the Public School shall be as set forth in Schedule I.—Public School Programme of Studies.

HIGH SCHOOL ENTRANCE EXAMINATIONS.

23.—(1) At every High School and Collegiate Institute and such other places as may be recommended by the County Council, an examination to be known as the High School Entrance examination, to be conducted in the subjects prescribed for the Fourth Form of Public Schools, shall be held annually on examination papers prepared by the Education Department. The answer papers shall be read by the Board of Examiners constituted under the High Schools Act.

(2) Every candidate shall notify the Public School Inspector concerned, before May 1st, of the examination centre at which he purposes to write.

(3) The Entrance Board of Examiners for a city may, however, with the approval of the High School Board concerned, prepare examination papers in lieu of those prepared by the Education Department, but such papers shall be on the same subjects, and the same scheme, and the same standard for passing shall be required; *or*, with the concurrence of the Boards in charge of the High, Public, and Separate Schools concerned, such Board of Examiners, instead of holding an examination itself, may admit pupils on the recommendation of the Public or Separate School Principal; but, in all such cases, the Board of Examiners shall satisfy itself that all the subjects of Parts I. and II. have been satisfactorily completed before admission is granted.

24. The County Council may impose a fee not exceeding one dollar upon each county pupil writing at the Entrance examination. Boards of Trustees may impose similar fees upon resident and non-resident pupils writing on the Entrance examination at High Schools and Collegiate Institutes; but such fees shall not be imposed where the Board of Trustees authorizes the promotion of pupils to the Fifth Form of the Public Schools without passing the Entrance examination.

25.—(1) The subjects for admission to the High Schools shall be those prescribed for the Fourth Form of the Public Schools, as follows:

Part I.—Literature, History, Art, Physiology and Hygiene, Nature Study.

Part II.—Reading (written and oral), Writing, Spelling, Geography, Grammar, Composition, Arithmetic.

(2) The Literature of Part I. shall embrace the careful reading during the previous year of at least four suitable works selected by the Principal for each pupil, from a list in supplementary reading in English literature prepared by the Public School Inspector.

(3) The written examination in Reading will be based on sight passages, and will be designed as a test of the candidate's understanding of what he reads. The candidate's knowledge of the selections for memorization will also, as heretofore, be tested on this paper.

26.—(1) No candidate from a Public or Separate School shall be admitted to the examination in the subjects of Part II. who has not been reported by the Principal to the Public School Inspector, on or before June 15th, as having completed satisfactorily the courses in the subjects of Part I. At the same time a confidential report from the teacher or staff as to the standing of their candidates, may also be submitted to the Public School Inspector for the consideration of the Entrance Board.

(2) When a candidate has not been prepared in a Public or Separate School, the Public School Inspector shall admit him to the examination for Part II., and shall report the circumstances to the Entrance Board, which will deal with such case as it may deem expedient.

(3) At his official visits to each school, the Public School Inspector shall satisfy himself as to the efficiency of the provision for carrying out subsection (1) preceding, and, without his approval of the school, the certificate for Part I. shall not be accepted by the Entrance Board

27.—(1) The marks allotted in the Entrance examination will be apportioned as follows: Reading (oral), Writing, Spelling, each 50; Reading (written), Grammar, Composition, Geography, Arithmetic, each 100. Two marks shall be deducted for each misspelled word in the spelling paper, and reasonable deductions may be made for misspelling in the other papers. Deductions may also be made for want of neatness.

(2) Any candidate who obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate marks shall be considered as having passed the examination. The examiners may also award pass standing to candidates who have not made a bad failure in any subject, but who have made a high aggregate above the total required, or to other candidates for admission whose cases demand special consideration.

(3) The decision of the Board of Examiners shall be final with regard to the admission or rejection of any candidate, but the Inspector may submit to the Board for re-consideration the complaint of any candidate or any other person with regard to the examination.

28. In the interval between examinations, a pupil who has been prepared on a different course in another Province or country, or a pupil who was unable to attend the Entrance examination, may be admitted temporarily to a High School by the Principal, with the concurrence of the Public School Inspector, if in their judgment he is able to take up the work of the High School. A report showing the age and attainments of such pupil, with the reasons for his admission, and signed by the Principal and Public School Inspector, shall be submitted to the Entrance Board at its next meeting. The Board shall then finally dispose of the case, and shall include the entrant's name in its report at the next annual examination.

HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

ACCOMMODATIONS AND EQUIPMENT.

30.—(1) The plans and site of every High School hereafter erected or remodelled shall be subject to the approval of the Minister of Education.

(2) In all High Schools established since July, 1891, or to be hereafter established, there shall be a Principal and at least two assistants.

(3) No new High School shall be entitled to receive any grant that does not provide at least the amount fixed by the instructions of the Minister of Education with regard to accommodations and the equipment recognized as the maximum in distributing the Legislative grant to schools with two masters.

31.—(1) Any High School may be raised to the status of a Collegiate Institute when it is shown to the satisfaction of the Education Department that the Trustees have provided (a) adequate school

buildings; (b) equipment of the value and character recognized as the maximum in the case of High Schools with three or more masters; (c) four specialists, viz., one in Classics, one in Mathematics, one in Science, one in Moderns and History (one of whom or some other member of the staff being a Commercial specialist and one an Art specialist); and (d) such other assistants as will secure thorough instruction in all the subjects of the High School course as far as Senior Matriculation into the University of Toronto.

(2) A Collegiate Institute may be reduced to the rank of a High School on the joint report of the High School Inspectors, approved by the Education Department.

32. Every High School that complies with the Regulations of the Education Department shall be entitled to the following grants: (a) A fixed grant of \$375; (b) in respect of school accommodation, a maximum of \$100 in the case of High Schools with two masters and of \$150 in the case of High Schools with three or more masters; (c) in respect of equipment, ten per cent. of the total approved expenditure, but so as not to exceed \$160 in the case of High Schools with two masters or \$320 in the case of High Schools with three or more masters; (d) in respect of salaries, ten per cent. of the approved expenditure over \$1,500, but so as not to exceed \$600; (e) such amount *pro rata* in respect of average attendance as may remain unexpended of the grant.

33. Every Collegiate Institute that complies with the Regulations of the Education Department shall be entitled (a) to a fixed grant of \$375; (b) to a grant in respect of equipment of \$320; (c) to a grant in respect of school accommodation of \$200; (d) to ten per cent. of the approved expenditure on salaries over \$1,500, but so as not to exceed \$600; and (e) to a grant on the basis of average attendance out of any unexpended balance of the Legislative grant.

34. In apportioning the Legislative grant on equipment, the maximum recognized in the case of High Schools with two masters shall be as follows: Library, \$300; Scientific Apparatus, \$300; Maps and Globes, \$50; Models for Drawing, \$50; Typewriters, \$100; Gymnasium, not including equipment, \$800. In the case of Collegiate Institutes and of High Schools with three or more masters the maximum recognized shall be: Library, \$600; Scientific Apparatus, \$600; Maps and Globes, \$100; Models for Drawing, \$100; Typewriters, \$200; Gymnasium, not including equipment, \$1,600.

35.—(1) The catalogue of the equipment shall be kept by the Principal of the School and shall be accessible to any officer of the Education Department.

(2) The instructions of the Minister of Education in the matter of grading shall be followed in appropriating the grant for school accommodations. See Reg. 149.

(3) No High School or Collegiate Institute shall be entitled to any Legislative grant on its gymnasium for any year in which the time prescribed in Reg. 41 for Drill Gymnastics and Calisthenics has not been provided.

(4) On the report of a High School Inspector such reductions may be made in the grants payable upon the equipment, the accommodations, and the salaries of the staff, as the Minister of Education may deem expedient.

ORGANIZATION.

36.—(1) In every High School or Collegiate Institute the head teacher shall be called the Principal, and the other teachers Assistants.

(2) The authority of the Principal of the High School shall be supreme in all matters of discipline on the school premises where the Public and the High School occupy the same building.

(3) The provisions of the Public Schools Act, 1901, and the regulations of the Education Department with respect to the duties of pupils attending a Public School shall apply to teachers and pupils of High Schools.

37.—(1) The Principal of a High School or Collegiate Institute shall hold a Principal's certificate and the Assistants shall hold High School Assistants' certificates. Special teachers of Music, Art, Physical Culture, Manual Training, Household Science, and Agriculture shall possess qualifications satisfactory to the Minister of Education.

(2) If, after due advertisement, a High School Board is unable to obtain a legally qualified Assistant, a temporary certificate may be granted by the Minister of Education for the current half year to a suitable person on the application of the Board.

38.—(1) The Principal shall determine the number of pupils to be assigned to each Form and the order in which the subjects in each Form shall be taken up by the pupils.

(2) The Principal shall make such promotions from one Form to another as he may deem expedient; he shall also assign the subjects of the course of study among the Assistants.

(3) No pupil once enrolled in a Secondary School (a High School, or a Public or a Separate School Continuation or Fifth Book Class) shall be admitted to another Secondary School unless he presents a letter of honorable dismissal from the Principal of the Secondary School he last attended. In the event of a dispute, the parties thereto shall submit full particulars of the question for final settlement to the Inspector of the School into which the pupil seeks admission.

PROGRAMME OF STUDIES.

39.—(1) The courses of study in the High Schools shall be taken up in three main divisions: The Lower School (a two or three years' course), the Middle School (a one or two years' course), and the Upper School (a one or two years' course). The Principal shall make such organization of Forms as he may deem expedient.

NOTE.—The programme of studies has been prepared primarily for the general student; but it includes the work prescribed for University pass and honour matriculation, for the Teachers' non-professional examinations, and for the preliminary examinations of the learned professions.

(2) The High School courses of study shall be organized as follows:

(a) The General Course; (b) the Commercial Course; (c) the Manual Training Course; (d) the Household Science Course; (e) the Art Course; (f) the Agricultural Course; (g) the Courses for University Matriculation and the Preliminary Examinations of the Learned Professions; (h) the Courses for Teachers' Non-professional Certificates.

(3) The Board of Trustees shall select the courses on the report of the Principal; but a course shall not be taken up if, on the report of the High School Inspector, the Minister of Education decides that the staff, the equipment, or the accommodations are inadequate therefor.

(4) The following subjects shall be obligatory on all pupils: The Lower School courses in Geography, Arithmetic and Mensuration, English Grammar, Writing, Reading, and Physical Culture, with the English Composition, English Literature, and History of the Lower and Middle Schools.

(5) Pupils in the General Course shall take in addition, the Art and the Elementary Science of the Lower School, with such other subjects of the High School programme as may be agreed upon between the pupil's parent or guardian and the Principal of the school.

(6) Pupils in the special Commercial, Manual Training, Household Science, Art, and Agricultural Courses shall take the subjects that are obligatory on all pupils [see subsection (4) preceding], with such suitable modifications as may be deemed expedient by the Principal and approved by the Minister of Education.

(7) One of the courses prescribed in subsection (2) above and not more without the consent of the Principal, shall be taken by each pupil; but the Principal may omit or curtail the course in any of the obligatory subjects in the case of individual pupils who are not preparing for examinations, and whose circumstances, in his judgment, deserve special consideration.

40. The following shall be the average minimum amount of time to be devoted each week to each of the following subjects, separately from the other subjects, in the courses where such subjects are obligatory:

(1) *Reading*.—Two lessons of thirty minutes each for two years in the Lower School, the average number of pupils in each class being not more than twenty-five and the time being increased or diminished when the average in the class is greater or less than twenty-five. In all the school subdivisions, Reading shall be taken up systematically in connection with English Literature.

41.—(1) The course in Drill, Calisthenics, and Gymnastics is obligatory in Collegiate Institutes, and shall be taken up in lessons of thirty minutes each, three times a week, in each Form of the Lower School.

(2) Provision for Physical Culture shall be made in the Middle and Upper Schools also, but the amount and the character of the provision are left to the discretion of the Principal.

(3) No pupil shall be exempted from the course in Physical Culture except upon a medical certificate or on account of evident physical disability or of other reason satisfactory to the Principal and approved by the High School Inspector. In all the Forms the sexes shall be separately trained.

(4) During the months of May, June, September, October, and November, the Principal may substitute for drill, etc., such sports and games as he may approve.

(5) In High Schools having no gymnasium, drill and calisthenics shall be taken up at the discretion of the Principal as often as the weather, the accommodations, and the adequacy of the staff will permit; and gymnastics may be omitted.

42. The details of the courses of study in each Form in High Schools shall be as set forth in Schedule II.—High School Programme of Studies.

SPECIALISTS' STANDING.

51.—(1) Any person who obtains a degree in Arts in the honour department of Mathematics, Science, Classics, English and History, Moderns and History, or French and German, as specified in the calendar of any University in Canada and accepted by the Education Department, who has graduated with at least second class honours (or 66 per cent. in each subject of such honour department) and who has been in actual attendance in such department at a University for not less than two academic years, shall be entitled to the non-professional qualification of a Specialist in such department.

(2) A graduate who has not taken an honour degree in one of the above courses shall be entitled to the non-professional standing of a Specialist, on submitting to the Education Department a certificate from the Registrar of the University, that he has passed, subsequently to graduation, the examinations prescribed for each year of the honour course of the department in which he seeks to be recognized as a Specialist, or any examinations which are recommended by the University as equivalent thereto and accepted as such by the Education Department; and that he has been in actual attendance in such department at a University for not less than two academic years in preparation for the examinations therefor.

52. Any person who passes the examination in the subjects set forth in Circular No. 2—Courses for Commercial and Art Specialists—(each paper being valued at 100, and the standard being 40 per cent. in each and 60 per cent. of the aggregate, with 75 per cent. in honours), and who is the holder of a High School Assistant's certificate, shall be entitled to an interim Commercial or Art Specialist's certificate.

EXAMINATION AND OTHER FEES.

53. The fees authorized by the Education Department shall be as follows: Candidates for the Entrance examination, if so ordered by

the Board of Trustees or the County Council, \$1; District certificate, \$5; Junior Teachers' examination, \$5; Part I. Senior Teachers' examination, \$3; Part II. Senior Teachers' examination, \$3; Junior Matriculation, \$5; Senior Teachers' examination, at one examination, \$5; Commercial and Art Specialists, each, \$5; Part I. Junior Teachers' examination, when taken alone, \$3; for candidates for examination in one or more subjects only (not exceeding four), for the purpose of completing a course for pass Matriculation into any University or Learned Profession, \$2; Tuition, County Model School, when so ordered by the Board of Trustees, \$5; Kindergarten Assistants, \$3; Directors, \$5; examination Normal School, \$10; examination Normal College, \$15; appeals of all kinds, \$2 (fee to be refunded if the appeal is sustained).

KINDERGARTENS.

54. No person shall be appointed to take charge of a Kindergarten who has not passed the examination prescribed for Director of Kindergartens. No person shall be admitted to the course in training prescribed for assistants who is not 18 years of age and who has not Junior Teacher's Non-professional or Junior Matriculation standing, or who has not successfully pursued the High School Lower and Middle School courses. Any person who has taken the equivalent of such a course at some other educational institution may, on the recommendation of the Inspector and with the consent of the Minister of Education, be admitted to training. No person shall be admitted to the course prescribed for a Director who has not pursued the course prescribed for an assistant.

55.—(1) Any person who attends a Kindergarten for one year and satisfactorily completes the course prescribed for assistants, shall, on the recommendation of the Director of such Kindergarten, endorsed by the Public School Inspector or by the Principal of the Normal School where the course is pursued at one of the Provincial Kindergartens, be entitled to an Assistant's certificate, valid for two years.

(2) The holder of an Assistant's certificate or the holder of a Second Class Provincial certificate on attending a Provincial Kindergarten for one year and on passing the prescribed examinations, shall be entitled to a Director's certificate.

56.—(1) The examination for Directors shall include Psychology and the general principles of Froebel's system, History of Education, Theory and Practice of the Gifts and Occupations, Mutter and Kose-Leider, Botany and Natural History, Miscellaneous Topics, including discipline and methods of morning talks, each, 100; Practical Teaching, 500; Book work, 400. There shall also be sessional examinations in Music, Drawing, and Physical Culture, each valued at 50.

(2) The examination for assistants shall include Theory and Practice of the Gifts, Theory and Practice of the Occupations, Miscellaneous Topics, including the general principles of Froebel's system and their application to songs, games, elementary science, morning talks and discipline, each valued at 100.

(3) There shall be at least two sessional examinations and one final examination conducted by the staff and the Principal of the Normal School, in the case of Directors, and by the Staff and the Public School Inspector in the case of Assistants.

(4) Candidates for the Director's or the Assistant's certificate must obtain 40 per cent. of the marks assigned to each subject and 60 per cent. of the aggregate marks, the sessional and final examinations being taken together. Seventy-five per cent. of the aggregate will be required for honours.

COUNTY AND CITY MODEL SCHOOLS.

57. The Board of Examiners for every County, or the Trustees of any city, with the approval of the Minister of Education, may set apart at least one Public School for the professional training of third-class teachers. The Principal of such school shall be the holder of a First Class certificate from the Education Department and shall have at least three years' experience as a Public School teacher. In every Model School there shall be at least three assistants on the staff who shall be the holders of First or Second Class certificates. The County Board of Examiners shall distribute the teachers-in-training among the County Model Schools as may be deemed expedient.

58. The Model School term shall begin on the second day of September and shall close on the fifteenth day of December. During the term the Principal of the Public School to which the Model School is attached shall be relieved of all Public School duties except the management and supervision of the Public School. The assistants shall give such instruction to the teachers-in-training as may be required by the Principal or by the Regulations of the Education Department. There shall be a room for the exclusive use of the teachers-in-training either in the Public School buildings or elsewhere equally convenient.

59. Application for admission to a Model School shall be made to the Inspector not later than the 25th of August. Any person who has a full Junior Teachers' Non-professional certificate, or a District Non-professional certificate, or who is considered eligible by the Board of Examiners for a District certificate and who will be 18 years of age before the close of the term may be admitted as a teacher-in-training. The teachers-in-training shall be subject to the discipline of the Principal with an appeal in case of dispute to the Chairman of the County Board of Examiners. Boards of Trustees may impose a tuition fee, not exceeding \$5, on each teacher-in-training.

60. The course of study in Model Schools shall consist of instruction in School Management, to be valued for examination purposes at 100; instruction in the Science of Education, 100; instruction in the methods of teaching all the subjects on the Public School Course of

Study, four papers, 100 each; instructions in the School Law and Regulations so far as they relate to the duties of teachers and pupils, instruction in Reading, School Hygiene, Music, Art, and Physical Culture, 50 each; and such practice in teaching as will cultivate correct methods of presenting subjects to a class and develop the art of school government. The final examination of the Education Department will be limited to School Management, the Science of Education, School Law and Regulations, and Methods in Spelling, Literature, Composition, Grammar, History, Geography, Arithmetic and Mensuration, and Penmanship.

61. The Principal of the School shall submit to the Board of Examiners a report with respect to the standing of every teacher-in-training, having regard to his conduct during the session, his knowledge of the Public School Course of Study, his aptitude as a teacher, his powers of discipline and government in the school room and such other qualities as in the opinion of the Principal are necessary to a successful teacher. The Principal shall also report the standing of each teacher-in-training in the subject of Hygiene, Music, Physical Culture, and Art and Nature Study (both after 1904), as determined by at least one sessional examination. These reports shall be considered by the Board of Examiners at the final examination in estimating the standing of the candidates for certificate.

62. During the last week of the session, the County Board of Examiners shall require each teacher-in-training to teach in the presence of such members of the Board as may be appointed for that purpose, two lessons of twenty minutes each, one of which shall be assigned by the presiding examiner one day, and the other forty minutes before it is to be taught. The lessons shall be valued at 100 each, shall be appraised by different examiners, and shall not be taught in the same Form or in the same subject. The Board of Examiners shall also submit the candidates to a practical test of their ability to place upon the blackboard with neatness and despatch any exercise for pupils they may deem expedient. The time allowed for such a test shall not exceed ten minutes and the valuation 50 marks.

63. Any teacher-in-training having the full Junior Teachers' Non-professional standing who obtains 40 per cent. of the marks assigned to each subject (including Practical Teaching) and 60 per cent. of the aggregate shall be awarded a Third Class certificate valid for three years. At the request of the County Board, when there is a scarcity of teachers, and with the permission of the Minister of Education, a certificate for a shorter period and valid only within the jurisdiction of the County Board, to be known as a District certificate, may be awarded to teachers-in-training who obtain a lower percentage, or to such other persons whose non-professional standing would entitle them only to District certificates. The Board may reject any candidate whose scholarship, on the report of the Principal or of an examiner, appears to be defective. The decision of the Board with respect to the examination shall be final.

DISTRICT MODEL SCHOOLS.

64. The Minister of Education may set apart two Public Schools in each of the Districts of Thunder Bay, Algoma, Parry Sound, and Nipissing, as Model Schools for candidates for District certificates. No school shall rank as a District Model School unless it has a Continuation Class of the highest grade, and unless the staff consists of at least three teachers, viz., a Principal holding a First Class certificate and at least one of his assistants holding a Second Class certificate. Teachers-in-training at District Model Schools shall take the course of study and the final examinations prescribed for District Certificate examinations. Candidates for teachers' certificates at the District Model School examinations shall be at least 18 years of age, and shall take such a course of professional training in the subjects prescribed for County Model Schools as the Inspector of the District may direct.

65. In cities and counties where the French or German language prevails, the Board of Examiners, with the approval of the Education Department, may establish a Model School for the training of teachers of French or German origin; such schools shall hold one term each year, viz., from the 1st of September to the 1st of July. The course of study shall be the non-professional course required for a District certificate and the professional course required for a County Model School. The examination in English shall be conducted on the papers prescribed for the District certificate. The examination in French or German shall be limited to Reading, Grammar, and Composition, and may be both oral and written. The papers in French and German shall be prepared by the Board of Examiners. The Board may submit the teachers-in-training to such an examination on the professional course as it deems expedient.

TEACHERS' CERTIFICATES.

85.—(1) The Minister of Education may issue certificates on the report of the Educational Council or the Education Department, as follows, viz., permanent Third Class or District certificates to teachers of ten years' successful experience.

(2) Any person who attends a Public Kindergarten for one year and passes the prescribed examination, shall be entitled to an Assistant's certificate; any person who has obtained an Assistant's certificate and who has attended a Provincial Kindergarten one year and passes the prescribed examinations shall be entitled to a Director's certificate.

(3) Any person who attends a Normal School one session and who passes the prescribed examinations shall be entitled to a Second Class Public School certificate, permanent or interim, according to the percentage of marks obtained and previous experience. An interim Second Class certificate may be extended from year to year on the report of a Public School Inspector.

(4) Any person who has passed the prescribed examinations of the Normal College shall be entitled to a Normal College interim certificate.

86. A Normal College interim certificate shall entitle the holder, if under 21 years of age, to teach in a Public School only, and, if over 21 years, to teach in a Public or High School. After two years' successful experience as a teacher, the holder of such certificate shall, on the report of the Inspector concerned, be entitled to a permanent certificate as a First Class Public School teacher or as a High School assistant, ordinary or specialist, according to the class of school in which the experience was acquired. Normal College interim certificates may be extended from year to year on the report of a Public or a High School Inspector. Any graduate in Arts in any University in the British Dominions, who holds a High School assistant's certificate, and who, as shown by the report of the High School Inspector, has taught successfully three years (two of which at least were spent in a High School), shall be entitled to a certificate as Principal of a High School or Collegiate Institute.

87. A Third Class certificate shall be valid for a period of three years from the date thereof, and may on expiration be renewed by any Board of Examiners for a period not exceeding three years in all on the following conditions, viz., (a) where the applicant has re-passed the Part II. Junior Teachers' examination or holds a Non-professional certificate of a higher grade; (b) where the applicant has re-passed the County Model School examination. The certificate of any teacher who has not taught the full period of three years for which his certificate was granted may be renewed by the County Board for any time lost by sickness or any other cause. In all cases the report of the Inspector with respect to the efficiency of the applicant as a teacher must be satisfactory. All renewals shall be issued with the authority of the Board, and shall be limited to the jurisdiction of the Board of Examiners granting the same.

88. With the consent of the Minister of Education, a temporary certificate may be given by the Inspector to any person of suitable character and attainments where a qualified teacher is not available, such certificate to be valid only under the Board of Trustees applying for the same.

PUBLIC SCHOOL INSPECTORS AND DUTIES OF INSPECTORS.

89. The holder of a degree in Pedagogy who has had four years' experience as a teacher of which two years shall have been in a Public School, and any person with five years' successful experience as a teacher, of which at least three years shall have been in a Public School, who holds either Specialist's non-professional standing obtained on a University examination, or a degree in Arts from any University in Ontario with first-class graduation honours in one or more of the recognized departments in such University, and who has passed the examination of the Ontario Normal College for a Specialist's certificate, shall be entitled to a certificate as an Inspector of Public Schools.

90. Every Inspector of any class of schools conducted under the Education Department, while officially visiting a school, shall have supreme authority in the school, and may direct teachers and pupils in regard to any or all of the exercises of the school-room. He shall, by personal examination or otherwise, as he may be directed by the Minister of Education, ascertain the character of the teaching in the schools which he is authorized to visit, and shall make enquiry and examination, in such manner as he may think proper, into the efficiency of the staff, the accommodations and equipment of the school, and all matters affecting the health and comfort of the pupils. He shall report to the Minister of Education any violation of the Schools Act or the Regulations of the Education Department in reference to the class of schools for which he is Inspector.

TEACHERS' INSTITUTES.

91. Every Teachers' Institute shall have one meeting each year on a Friday and Saturday to be named by the Management Committee. The County Council may allow Thursday to be taken also if considered expedient. The Institute shall hold two sittings per day, of three hours each, for at least two days, and one evening sitting. All questions and discussions foreign to the teachers' work shall be avoided. The officers of the Institute shall be a President, Vice-President, and Secretary-Treasurer. There shall be a Management Committee of five persons, to be appointed by the members of the Institute. The officers and the Management Committee shall be elected annually.

92. The Inspector shall furnish the Secretary of the Institute with a list of the teachers in his County or Inspectoral division. Every Public School teacher shall attend continuously all the sessions of the Institute of his County or Inspectoral division, and shall answer to the calling of the roll at the opening and closing of each session. A report of the sessions attended by each teacher shall be sent by the Secretary to the Board of Trustees employing such teacher.

READING COURSE.

93. The Minister of Education may prescribe a Course of Reading for the teachers of Public Schools. The course shall extend over three years, and certificates for reading more than three books in one year shall not be granted by the Inspector. For the purposes of the course, the year shall correspond with the calendar year. A teacher may enter on the course by taking any of the books prescribed for the year. The list of books for each year will be announced by the Education Department.

94. Any teacher who desires a certificate of having taken the Public School Teachers' Reading Course shall make a synopsis of not less than ten or more than fifteen pages of each book read, and shall

transmit the same to the Inspector of his district on or before the 30th June in each year. Such synopsis shall be accompanied by a fee of twenty-five cents and a declaration that the books prescribed for the year were read and that the synopsis submitted was prepared without assistance by the person signing the same.

95. The Management Committee of each Teachers' Institute shall appoint two persons, who, with the Inspector, shall form a committee for determining whether the synopsis made by the teacher desiring a certificate indicates that the books have been read intelligently. The Inspector shall issue a certificate for each book so read, on the form prescribed by the Minister of Education, to every teacher whose synopsis has been found satisfactory. If a teacher is unable to read all the books prescribed for the year, or if his synopsis of any book has been rejected, he may substitute the books of the next year for those omitted or rejected.

96. Any teacher who submits to the Education Department certificates showing that he has satisfactorily read nine of the books prescribed, shall be entitled to receive from the Minister of Education a diploma certifying to the completion of one full reading course covering three years. Additional diplomas shall be awarded to teachers who complete additional courses of three years.

RELIGIOUS INSTRUCTION.

97. Every Public and High School shall be opened with the Lord's Prayer and closed with the reading of the Scriptures and the Lord's Prayer, or the prayer authorized by the Department of Education. When a teacher claims to have conscientious scruples in regard to opening or closing the school as herein prescribed, he shall notify the Trustees to that effect in writing; and it shall be the duty of the Trustees to make such provision in the premises as they may deem expedient.

98. The Scriptures shall be read daily and systematically; the portions used may be taken from the book of selections adopted by the Department for that purpose, or from the Bible, as the Trustees by resolution may direct. Trustees may also order the reading of the Bible or the authorized Scripture selections by both pupils and teachers at the opening and closing of the school, and repeating of the Ten Commandments at least once a week.

99. No pupil shall be required to take part in any religious exercises objected to by his parents or guardians, and in order to the observance of this regulation, the teacher, before commencing a religious exercise, is to allow a short interval to lapse, during which the children of Roman Catholics, and of others who have signified their objection, may retire. If in virtue of the right to be absent from the religious exercises, any pupil does not enter the school room

till the close of the time allowed for religious instruction, such absence shall not be treated as an offence against the rules of the school.

100. The clergy of any denomination, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own church, in each school house, at least once a week, after the hour of closing the school in the afternoon; and if the clergy of more than one denomination apply to give religious instruction in the same school house, the Board of Trustees shall decide on what day of the week the school house shall be at the disposal of the clergymen of each denomination, at the time above stated. But it shall be lawful for the Board of Trustees to allow a clergyman of any denomination, or his authorized representative, to give religious instruction to the pupils of his own church providing it be not during the regular hours of the school. Emblems of a denominational character shall not be exhibited in a Public School during regular school hours.

GRANTS TO WEAK SCHOOLS.

101. Where on the report of the Inspector or on other satisfactory evidence it appears that any school section is so limited in area, or is so remote from market or railway accommodation, or has suffered from any exceptional cause as to clearly establish the inability of the ratepayers to bear the ordinary burdens of taxation for school purposes, the Minister of Education may appropriate to such section out of the grant to Poor Schools such sum of money from year to year as he may deem expedient, but nothing in the regulations shall be construed as establishing the claim of any school upon the Poor School Fund, beyond the discretion of the Education Department.

102. The Inspector shall submit to the County Council at the regular meeting thereof in January or June of each year, a list of the schools in his Inspectoral division where the assessment for school purposes is insufficient for the proper maintenance of the school, and shall indicate in each case any special reason why the statutory grants for school purposes should be supplemented by the County Council.

103. All schools receiving special grants, either from Township or County Council, shall receive from the Poor School Fund voted by the Legislature the equivalent of such special grant, provided the sum voted by the Legislature is sufficient. When the Legislative grant is not sufficient to admit of paying the equivalent of the County or Township grant, then such grant shall be made, as nearly as possible *pro rata*. Any portion of the Poor School Fund remaining after such payments are made may be distributed among other weak schools on the report of the Inspector. In making application for grants special attention should be paid to the following requirements:

(1) That a School Section with definite boundaries has been set apart by the Township Council, having jurisdiction, or, where no municipal organization exists, by the Public School Inspector, if any,

under the authority of the twenty-fifth section of the Revised Public Schools Act, 1901.

(2) That Trustees have been duly elected for such section.

(3) That a building and other suitable accommodation for the school have been provided by the Trustees.

(4) That a teacher holding a valid certificate has been employed by the Trustees for at least six months of the year.

(5) That the yearly report in the prescribed form has been sent in to the Inspector, at the time specified, and certified by him as satisfactory.

(6) That the assessed value of the section and the financial condition of the ratepayers are such as to render aid absolutely necessary.

SUPERANNUATED TEACHERS.

104. Any subscriber to the fund for superannuated teachers who fails or neglects to pay the annual subscription of \$4 on or before the 31st of December in any year, shall be required to pay for such year the sum of \$5. In the case of persons under 60 years of age who have been placed upon the superannuated list, proof of disability for professional service shall be furnished annually to the Department. Should it appear that any superannuated teacher under 60 years of age is capable of resuming his profession, the allowance shall in the meantime be withdrawn. No allowance shall be paid unless satisfactory evidence of good moral character is furnished the Education Department annually, or when required.

TEXT-BOOKS.

105.—(1) The copyright of every authorized text-book shall, where possible, be vested in the Education Department. The publisher of an authorized text-book shall submit to the Minister of Education a sample copy of every edition for approval, and no edition of any text-book shall be considered as approved unless a certificate to that effect, in writing, has been issued by the Minister of Education.

(2) Before application is made for the authorization of any text-book, the book must have been in circulation for at least six months for examination by teachers, inspectors, and other educationists, provided that this Regulation shall not apply to any book the authorization of which is under consideration at the date of these Regulations.

(3) Subject to the preceding subsection, the Minister of Education, when a change in text-books is deemed desirable, may submit to a committee of the Educational Council, as hereinafter provided, for examination and report any and all books for which such authorization is sought. In the case of text-books to be used in the Public Schools, the hereinbefore mentioned committee shall consist of not more than five members, one of whom shall be the Inspector of Public

Schools and one of them the Public School representative on the said Educational Council. In the case of text-books to be used in the High Schools and Collegiate Institutes, the committee shall consist of not more than five members, of which the High School representatives on the said Educational Council and the President of the College and High School section of the Ontario Educational Association shall be members.

106. Before any authorized text-book is placed on the market, the publisher thereof shall execute such agreements and give such security for the publication of such book as may be required by the Minister of Education. Any authorized text-book shall be subject at every stage of its manufacture to the inspection and approval of the Education Department as regards printing, binding and paper, and may be removed from the list of authorized text-books in case the publisher fails to comply with the Regulations of the Education Department.

107. Every authorized text-book shall bear the imprint of the publisher, and shall show upon the cover the authorized retail price. No part of an authorized text-book shall be used for advertising purposes, and no change shall be made in the letterpress, binding, or paper of any authorized text-book without the consent of the Minister of Education. Books recommended as reference books shall not be used as text-books by the pupils, and any teacher who permits such books, or any other book not authorized as a text-book for the Public Schools, to be used as such, and any teacher who permits the use of charts as substitutes for any of the authorized text-books shall be liable to such penalties as are imposed by the Schools Act.

FREE TEXT-BOOKS.

108. Any Public or Separate School Board in rural districts may, by a resolution, decide to have certain text-books purchased for the pupils free of cost to the parents or guardians.

109. The text-books that may be provided in this way shall include only such Readers as may be authorized for use in the Public or Separate Schools.

110. Any rural School Board which provides such text-books free for the scholars shall be entitled to a grant, equivalent to one-half the amount expended, from whatever money may be appropriated for the purpose by the Legislature.

111. Trustees shall have the right to purchase from either wholesale or retail dealers, and on such conditions as they may consider most desirable.

112. The Trustees are required to make proper arrangements for the care of the text-books which become the property of the Board;

and the Principal or a teacher of the school shall be librarian, and act under such instructions as may be given by the Minister of Education, the Inspector or the Trustees of the school concerned.

113. All applications for Legislative aid must be made, through the Public (or Separate) School Inspector, to the Minister of Education by the Trustees, who shall give all necessary information regarding the books purchased, together with such vouchers from the book-sellers as may be required. The Inspector will make application to the Education Department on a form to be provided.

114. All applications by Trustees for Legislative aid must be made before the 1st day of October in each year, and after the books have been received. Any purchases made after that date and before the same date of the succeeding year may be included in applications made the following year.

PUBLIC SCHOOL LIBRARIES.

115. The Minister of Education may prepare a catalogue of books adapted for school libraries, or approve of a catalogue recommended by the Inspector for his inspectorate, the lists to include mainly works suitable for children, in such departments as biography, history, geography, travel, mythology and fables, elementary science, citizenship, etc.

116. Any rural School Board which provides a library for the scholars shall be entitled to a share of whatever money may be appropriated for the purpose by the Legislature, if it purchases such books as are contained in the approved lists.

119. The powers heretofore held by Trustees to establish school libraries are not affected by these provisions; and Boards have full authority under the provisions of the statute to purchase books for the school library, and to make such selections as they may deem expedient. Any aid granted from the Legislative appropriation will, however, be based solely upon the amount expended for books given in the catalogues prepared or approved by the Minister of Education.

120. The Trustees are required to make proper arrangements for the care of the library, and the Principal of the school shall be librarian and act under such instructions as may be given by the Minister of Education, the Inspector, or the Trustees of the school concerned.

HOUSEHOLD SCIENCE.

132. Subject to the provisions hereinafter mentioned, no certificate to teach Household Science shall be awarded after September 1st, 1904, to anyone who does not hold at least Junior Leaving or Junior Matriculation standing.

133. All institutions whose graduates may be recognized as teachers of Household Science shall provide, to the satisfaction of the Education Department, suitable courses of study as well as adequate accommodation, equipment and instruction, for students preparing to become teachers in this department.

134.—Every student who desires to become a teacher of Household Science must take a two years' course of study in the department, but any person holding a certificate from one of the Normal Schools who completes satisfactorily a one year's course shall be awarded a teacher's certificate in Household Science.

135.—Any graduate of the Normal College who completes satisfactorily a one year's course at one of the recognized institutions for the training of teachers in Household Science, shall be awarded a teacher's certificate as a Specialist in this department.

136.—Any person holding a certificate to teach Household Science granted by the Education Department shall be qualified to have charge of a department of Household Science under any High, Public or Separate School Board.

137.—Certificates as teachers of Household Science shall give no legal qualification to teach any of the other subjects of the school curriculum.

138.—No grant shall be paid by the Government towards a department of Household Science unless the teacher who has charge of such department is duly qualified as herein provided.

139.—These provisions shall not apply in the case of teachers already in charge of the department of Household Science or to students preparing to be teachers of the subject who have been enrolled before the date of these regulations.

MANUAL TRAINING.

140.—Subject to the conditions herein mentioned, the Macdonald Institute, Guelph, shall be the only institution recognized by the Education Department for the training of teachers in Manual Training.

141.—The Macdonald Institute shall provide, to the satisfaction of the Education Department, suitable courses of study as well as adequate accommodation, equipment and instruction for students desiring to become teachers of Manual Training.

142.—Any person holding at least a second-class certificate from one of the Normal Schools, who completes satisfactorily a one year's course at the Macdonald Institute, shall be awarded a teacher's certificate in Manual Training.

143.—Any graduate of the Normal College, who completes satisfactorily a one year's course at the Macdonald Institute, shall be awarded a teacher's certificate as a Specialist in Manual Training.

144.—Any person holding a certificate from the Macdonald Institute as a Teacher of Manual Training, shall be qualified to have charge of a department of Manual Training under any High, Public or Separate School Board.

145.—No grant shall be paid by the Government towards a department of Manual Training unless the teacher who has charge of such department is duly qualified as herein provided.

146.—A certificate as a Teacher of Manual Training or as a Specialist in the same department shall give no qualification to teach any of the other subjects of the Public or High School curriculum.

147.—These provisions shall not affect any person who is now in charge of a department of Manual Training in any High, Public or Separate School, or who may be appointed by the Board concerned before the 1st of September, 1904; it being understood, that such persons shall have qualifications satisfactory to the Minister of Education.

GENERAL DIRECTIONS TO TRUSTEES.

148.—The notice calling an annual or special meeting should be signed by the Secretary or by a majority of the trustees. Any rate-payer may call the meeting to order and nominate a chairman as soon as the hour appointed arrives. The business of all school meetings should be conducted according to the following rules of order:—

(1) *Addressing Chairman.*—Every elector shall rise previously to speaking, and address himself to the chairman.

(2) *Order of Speaking.*—When two or more electors arise at once, the chairman shall name the elector who shall speak first, when the other elector or electors shall next have the right to address the meeting in the order named by the chairman.

(3) *Motion to be read.*—Any elector may require the question or motion under discussion to be read for his information at any time, but not so as to interrupt an elector who may be speaking.

(4) *Speaking twice.*—No elector shall speak more than twice on the same question or amendment without leave of the meeting, except in explanation of something which may have been misunderstood, or until every one choosing to speak shall have spoken.

(5) *Protest.*—No protest against an election, or other proceedings of the school meeting shall be received by the chairman. All protests must be sent to the Inspector within twenty days at least after the meeting.

(6) *Adjournment*.—A motion to adjourn a school meeting shall always be in order, provided that no second motion to the same effect shall be made until after some intermediate proceedings shall have been had.

(7) *Motion to be in writing and seconded*.—A motion cannot be put from the chair, or debated, unless the same be seconded. If required by the chairman, all motions must be reduced to writing.

(8) *Withdrawal of a motion*.—After a motion has been announced or read by the chairman, it shall be deemed to be in possession of the meeting, but may be withdrawn at any time before decision, by the consent of the meeting.

(9) *Kind of motions to be received*.—When a motion is under debate no other motion shall be received, unless to amend it, or to postpone it, or for adjournment.

(10) *Order of putting motion*.—All questions shall be put in the reverse order in which they are moved. Amendments shall be put before the main motion; the last amendment first, and so on.

(11) *Reconsidering motion*.—A motion to reconsider a vote may be made by any elector at the same meeting; but no vote of reconsideration shall be taken more than once on the same question at the same meeting.

(12) *Minutes*.—At the close of every annual or special meeting the chairman should sign the minutes, and send forthwith to the Inspector a copy of the same signed by himself and the Secretary.

(13) *Legal Trustee*.—Every Trustee declared elected by the Chairman of the school meeting is a legal Trustee until his election is set aside by proper authority.

(14) *Use of Seal*.—The seal of the school corporation should not be affixed to letters or notices, but only to contracts, agreements, deeds, or other papers, which are designed to bind the Trustees as a corporation for the payment of money, or the performance of any specified act, duty or thing.

ACCOMMODATIONS OF HIGH SCHOOLS: GRADING AND GRANTS.

149.—School accommodation shall be considered as divided into four grades, according to the character and extent of the premises, school buildings and their equipment.* Where, in Schools already erected, any part of the accommodation is used jointly by the High and Public Schools, the grading shall be one degree lower than if the Schools were separate. In determining the grades, the officers of the Education Department shall have regard to the following considerations:—

* For suggestions in regard to accommodations, sanitation, and school-room decoration. see section xiv., of the Catalogue of Books recommended by the Education Department for High School Reference Libraries, (1902).

(1) *School Grounds*.—The school grounds shall not be less than one acre in extent, easily accessible, not exposed to disturbing noises, and exclusively devoted to High School purposes. The grounds shall be properly levelled and drained, and ornamented with trees, shrubs, and flower beds; they shall also have separate entrances, recreation grounds and walks for the sexes. The recreation grounds for the sexes shall be separated with a close board fence, wall, or hedge. Provision shall be made for keeping the premises and grounds in good order.

(2) *Water Supply*.—Where there is no other source of water supply, there shall be a well in the school premises properly protected against pollution. Lavatories, water-taps or tanks, and drinking cups shall be provided. Grades I. and II. shall be given only when the water supply is inside the building.

(3) *Closets*.—The closets for the sexes shall be under separate roofs several feet apart, and properly screened from observation. Each closet shall contain a sufficient number of compartments for the attendance, each compartment being provided with a door. The boys' closet shall be built of glazed brick or similar material, or of wood, painted a dark colour and sanded. Urinals, of slate or similar material, divided into compartments and properly situated, shall be provided for the boys, and separate and locked closets for the teachers. The closets and urinals shall be cleansed and disinfected at suitable intervals. Covered walks shall be laid from the door of the school building to the closets. A close, high board fence or wall shall be provided between the boys' and girls' side, from the closet to the school building, and the entrance to the closets shall be properly screened. In the case of Union Schools, the closets for High School pupils shall be separate from the closets for Public School pupils. Where the closets are inside the building the above conditions shall apply *mutatis mutandis*.

(4) *School Building*.—The grading of the school building shall depend upon the site and architectural appearance. In every school building there shall be separate entrances for the sexes with vestibules or covered porches, and separate means of egress at the rear to the recreation grounds and closets. The High School building shall be separate from the Public School building, and at least thirty feet distant from the highway. A school-bell and a flag and a flag-pole should be provided.

(5) *Class Rooms*.—The class-rooms shall be conveniently arranged, well proportioned and oblong in shape. Suitable color-schemes should be adopted for the halls and class rooms (see Books of Reference, note, p. 25). The floors should be kept in good order. A superficial area of 12 square feet and a cubic air space of 250 feet shall be allowed for each pupil. In three-masters' schools or over, at least one separate class-room shall be provided for science teaching; in two-masters' schools one of the ordinary class-rooms may be used for this purpose, and in the larger schools the laboratories for Chemistry, Physics, and Biology shall be separate. There shall be a hall or class-room in which all the pupils can assemble. A moveable fanlight shall be placed over each class-room door. The class-rooms should be decorated with good

pictures, casts, and vases, and other beautiful ornaments. (See Books of Reference, note, p. 25.)

(6) *Teachers' Private Rooms*.—There shall be at least one room for the private use of the teaching staff, of suitable size and comfortably furnished. Where the teaching staff is large, there shall be two or more private rooms, one of which shall be assigned for the accommodation of the female teachers.

(7) *Halls*.—The halls shall be of suitable size, well lighted, and shall be so placed to admit of separate entrances for the sexes to the waiting-rooms, cap-rooms, and class-rooms. In buildings of two or more stories there shall be separate stairways for the sexes, easy of access and well guarded. Suitable colour schemes and decorations should be provided.

(8) *Waiting-Rooms and Cap-Rooms*.—The waiting-rooms and cap-rooms for the sexes shall be conveniently situated with respect to the class-rooms. The waiting-rooms shall be furnished with benches and tables, and the cap-rooms with all necessary appliances for storing umbrellas and for hanging caps or cloaks. Provision shall also be made in the building for storing bicycles.

(9) *Desks*.—There shall be a single desk for each pupil in attendance. The desks shall be of suitable size with moveable seats and adjustable lids. There shall be a desk and a chair in each class-room for the use of the teacher, and at least one chair for a visitor. The laboratory shall be supplied with suitable tables for experimental work in both Physics and Chemistry. In the larger schools special provision shall be made for teaching Biology and Physics; special desks shall also be provided for Commercial work. Single desks shall be graded I. and double desks II., if there is suitable provision in each case for practical work in Science; otherwise the grading shall be one degree lower.

(10) *Blackboards*.—The blackboards shall be of sufficient extent and of good quality (slate preferred), properly placed in regard to light and distance from the floor, and furnished with troughs to hold chalk dust. There shall be a suitable supply of erasers for teachers and pupils, and the troughs and erasers shall be cleaned every day.

(11) *Lighting*.—The class-rooms shall be lighted from the left of the pupils, the lower edges of the windows being on a level with the heads of the pupils. The windows of every school building shall be adjusted by weights and pulleys. The windows shall admit of an adequate diffusion of light throughout the whole class-room. Grade I. is given only when the lighting is from the left.

(12) *Heating*.—The temperature of the class-room, halls, waiting-rooms, cap-rooms and teachers' private rooms shall be not less than sixty-eight degrees. Where stoves are used they shall be so placed and protected as to prevent discomfort to any pupil. Grades I. and II. shall be given only in the case of schools heated with hot air, steam pipes, or hot-water pipes.

(13) *Ventilation*.—Due regard shall be paid to the moisture as well as the temperature of the atmosphere, and provision shall be made for a complete change of air at least three times every hour. A draft-chamber or other suitable special means of ventilation shall be provided for the laboratory.

(14) *Gymnasium*.—The Gymnasium should either be a part of the main school building or be connected therewith by a covered walk. It shall be adequately heated and ventilated. The sizes best adapted, having regard to the number of pupils, are 80×40 , or 70×35 . The windows in the sides of the building should be at least twelve feet from the ground; each window should be about three feet high by six feet long. They should be sufficiently numerous to furnish adequate light and easily adjustable for the purposes of ventilation. One end of the Gymnasium should be a dead wall without windows; the other end should contain the doors for entrance and either one large window or several small ones. The floor should be planked and a suitable supply of mattresses provided. The trapeze and flying rings should be in the central portion, suspended from points at least sixteen feet from the ground. The side rings should be suspended from points thirteen to sixteen feet from the ground. The stationary gymnastic apparatus, and the stove, where one is used for heating and where one is sufficient, should be placed at the end of the building containing the doors and windows. A locker and racks and stands should be provided for the moveable appliances when not used by the class. Private rooms should be provided where the pupils may make any desirable change in their dress; also an adequate number of baths. A running track should also be provided. Where the organization renders it necessary, separate gymnasia should be provided for the sexes. If suitably planned, the assembly-room may be used in addition for Physical Culture.

15. The grant on the grading of the school premises shall be distributed according to the following scheme:

	Closets.	Water supply.	School premises.	School building.	Class-rooms.	Halls.	Waiting-rooms.	Cap-rooms.	Teachers' rooms.	Desks.	Blackboards.	Lighting.	Heating.	Ventilation.
	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c	\$ c
TWO MASTERS' HIGH SCHOOLS.—Grade I.....	6 00	3 00	15 00	6 00	24 00	3 00	3 00	3 00	3 00	9 00	3 00	6 00	6 00	10 00
	4 50	2 50	12 50	4 50	20 00	2 50	2 50	2 50	2 50	7 50	2 50	4 50	4 50	7 50
	3 00	2 00	7 50	3 00	16 00	2 00	2 00	2 00	2 00	6 00	2 00	3 00	3 00	5 00
	1 50	1 00	3 75	1 50	12 00	1 50	1 50	1 50	1 50	4 50	1 50	1 50	1 50	2 50
THREE OR MORE MASTERS' HIGH SCHOOLS.—Grade I.	9 00	4 50	22 50	9 00	36 00	4 50	4 50	4 50	4 50	13 50	4 50	9 00	9 00	15 00
	6 75	3 25	18 25	6 75	30 00	3 75	3 75	3 75	3 75	11 25	3 75	6 75	6 75	11 25
	4 50	2 00	11 25	4 50	24 00	3 00	3 00	3 00	3 00	9 00	3 00	4 50	4 50	7 50
	2 25	1 00	5 65	2 25	18 00	2 25	2 25	2 25	2 25	6 75	2 25	2 15	2 25	3 75
COLLEGIATE INSTITUTES.—Grade I.....	12 00	6 00	30 00	12 00	48 00	6 00	6 00	6 00	6 00	18 00	6 00	12 00	12 00	20 00
	9 00	4 00	25 00	9 00	40 00	5 00	5 00	5 00	5 00	15 00	5 00	9 00	9 00	15 00
	6 00	2 00	15 00	6 00	32 00	4 00	4 00	4 00	4 00	12 00	4 00	6 00	6 00	10 00
	3 00	1 00	7 50	3 00	24 00	3 00	3 00	3 00	3 00	9 00	3 00	3 00	3 00	5 00

Gymnasium.—There shall be four grades for High Schools and Collegiate Institutes respectively, according to the suitability of the character and extent of the accommodations:—

For Grade I., ten per cent. of the value of the gymnasium as reported by the High School Inspector, will be allowed up to the maximum; for Grade II., ten per cent. of three-fourths of such value; for Grade III., ten per cent. of half of such value; and for Grade IV. ten per cent. of one-fourth of such value; but, when suitable additional accommodation is in use for Physical Culture, the grading will be one degree higher.

TECHNICAL INSTRUCTION : DISTRIBUTION OF GRANTS.

150.—(1) The plans of every building hereafter erected or of any room adapted for the purpose of Manual Training, Household Science, or Special Technical Instruction, shall be submitted to the Minister of Education, and be subject to his approval, and a copy of such plans shall be filed in the Department of Education.

(2) Subject to the provisions of sections (5), (7) and (8) hereof, every school maintaining a Manual Training department shall be entitled to the following annual grants:—

(a) A fixed grant of \$350.00.

(b) 10 per cent. of the expenditure over \$600.00 for teacher's salary or salaries, but so as not in any case to exceed \$100.00.

(c) 20 per cent. of the cost of equipment for each of the first five years, and thereafter of the annual renewals and additions.

(3) Subject to the provisions of sections (5), (7) and (8) hereof, receive annually:—

every school maintaining a department for Household Science shall

(a) A fixed grant of \$200.00.

(b) 20 per cent. of the expenditure over \$500.00 for teacher's salaries, but so as not to exceed \$50.00.

(c) 20 per cent. of the cost of equipment for each of the first five years, and thereafter of annual additions and renewals.

(4) Any school under the control of a Public, Separate, or High School Board, or Board of Education, or of a recognized Technical School Board, which is specially organized and equipped for giving instruction in the theory and practice of the mechanical and industrial arts and sciences, shall be entitled to receive out of any Legislative appropriation therefor, in addition to such sums as they may be entitled to receive under sections 2 and 3 hereof, such further sum as the Minister of Education may approve, based upon inspection and report, but so as not in any case to exceed \$750.00. To be eligible for this grant the building in which instruction is given, equipment, courses of study and qualifications of staff shall be approved by the Minister of Education.

(5) In apportioning the Legislative grants on equipments, the maximum value recognized shall be (a) for Manual Training \$500.00, (b) for Household Science \$300.00.

(6) The course of study, and the qualifications of every teacher hereafter employed, shall be subject to the approval and regulations of the Education Department.

(7) The unit of distribution of the Legislative grant for Manual Training and Household Science shall be the time of one teacher for five hours on each of five days per week.

(8) The grants mentioned in the foregoing sections shall be subject to such pro-rata increase or reduction as the Legislative appropriation therefor will permit.

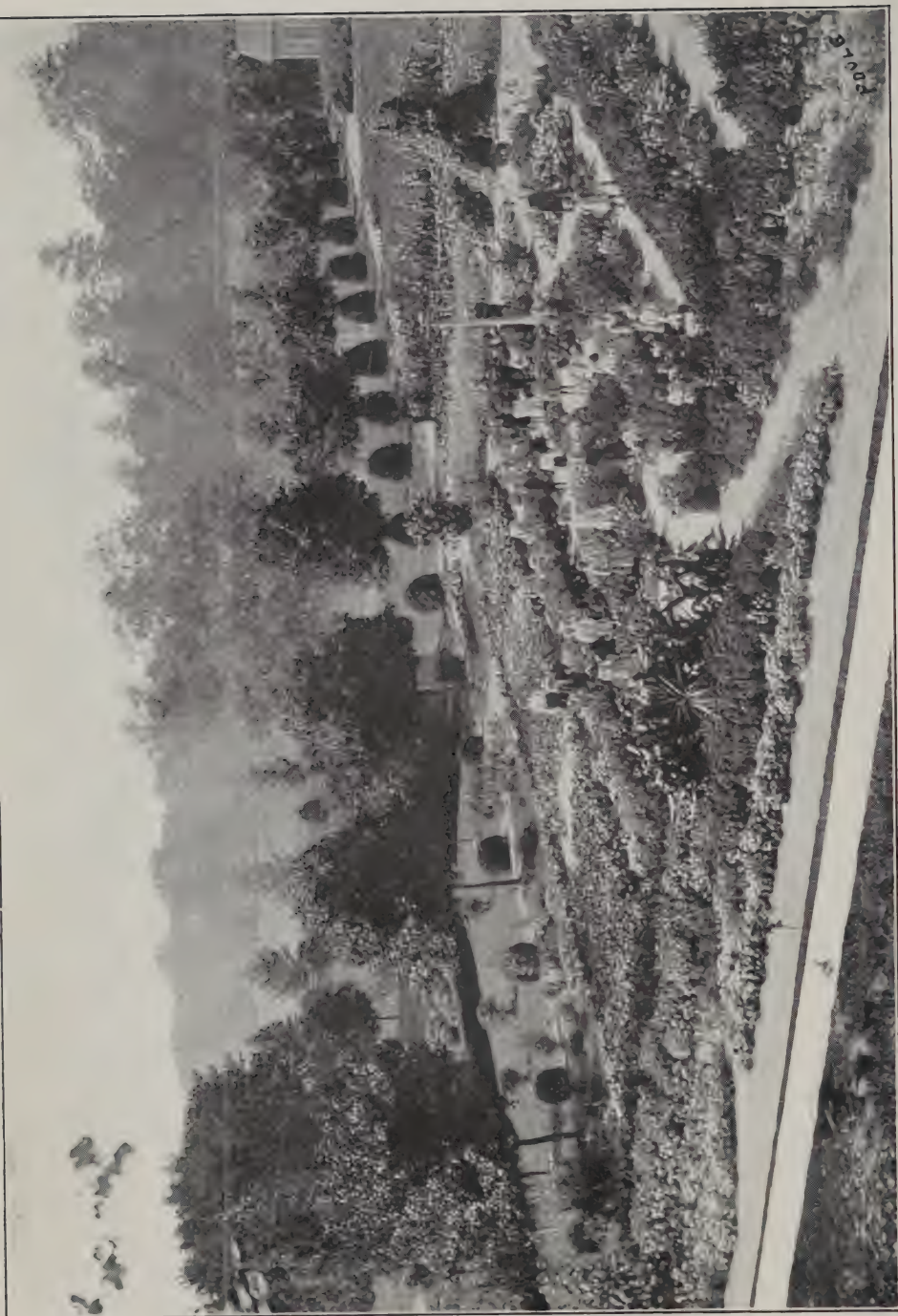
(9) No Manual Training or Household Science school or department will be recognized as efficiently equipped that is provided with accommodation for less than 12 or more than 25 students, at any one time, for practical work.

INSTRUCTIONS AND REGULATIONS.

151.—Instructions may be issued by the Minister of Education from time to time to Inspectors or other officers in carrying out the provisions of these Regulations.

152.—All former Regulations of the Education Department are hereby repealed.

Improvement of School Grounds



THE BITTENHOUSE SCHOOL GARDENS AND GROUNDS, AT THE REAR OF THE SCHOOL HOUSE.
Ideal school surroundings. Similar results may be obtained in any school section in Ontario, at a very moderate outlay.

Improvement of School Grounds

Plans and Suggestions for the
Improvement of Rural
and Urban School
Grounds



TORONTO:
1908

Printed by order of the Legislative Assembly of Ontario.

L. K. CAMERON, Printer to the King's Most Excellent Majesty, Toronto.

Improvement of School Grounds.

Dean Bailey, of Cornell University, in an address on the "Improvement of Rural School Grounds," makes the following statement:—

One's training for the work of life is begun in the home and fostered "in the school. This training is the result of a direct and conscious effort on the part of the parent and the teacher, combined with the indirect result of the surroundings in which the child is placed. The surroundings are more potent than we think, and they are usually neglected. It is probable that the antipathy to farm life is often formed before the child is able to reason on the subject. An attractive playground will do more than a profitable wheat crop to keep the child on the farm."

At a time when so much is being said about the country boys leaving the farm, and when efforts are being made to adapt the work of the school to the needs of the rural communities, probably no more urgent need could be brought to the notice of the public than that of a general improvement of school surroundings. We are all more or less familiar with their bare, neglected, windswept appearance, many of them being without a vestige of a tree or a shrub. In neglecting so long to beautify schools and their surroundings, the people of Ontario have missed one of the best opportunities of implanting in the minds of the young a love for rural life and the beauties of nature, as well as for the order and simple neatness which make for so much in every day life in either town or country.

The Trustees' Opportunity and Duty.

In the past the improvement of the school grounds has usually been left to the teachers. Some of them have, it is true, been able to accomplish much with the co-operation of the children. But such work is really the duty of the trustees. It is to them the section and the teacher look for the proper equipment of the school inside, and it is just as much their duty to equip fully the school outside as well. The idea that it is useless to put the school grounds in good condition because the children may injure them, is a serious mistake. Make the school grounds worthy of respect and the children will have respect for them. Moreover, the inspiration thus received will result in the beautifying of the home surroundings throughout the whole country. Wherever the trustees rise to the occasion and do their part in the work of improvement, the teachers and pupils may be safely counted upon for hearty co-operation.

The Plans and Grounds.

The accompanying plans on pages 22-33 show how grounds differing in size and shape may be laid out to meet varying requirements; but the plans are merely suggestive and may be modified to suit existing conditions, for no ready-made plan will suit all places. The plans are for

half-acre, one-acre, and two-acre grounds. For the average rural school grounds two acres is best. This size affords ample space for separate play grounds for boys and girls, provides for the introduction of school gardens, which are now generally recognized as a necessary part of the equipment in every up-to-date rural school, gives room for a varied collection of trees and shrubs, and allows for an open lawn in front. As, however, is shown by the plans, grounds of less than two acres may be used to advantage.

Where animals are not allowed to run at large, fences should be unnecessary. If, however, the school grounds have to be fenced, and unfortunately this is too often necessary, the fence should be as inconspicuous as possible. A low, neat, woven wire one is probably the best, and it may be fairly well hidden by the use of shrubbery, or it may be used as a trellis for vines and ornamental climbers.

Location of Buildings.

The location for the buildings in the school grounds depends largely on the surroundings. As a rule, the best location for the school house itself is near the middle of the lot, so as to allow, when desired, for separate play grounds for boys and girls at the sides. It should be far enough from the road or street to give an open lawn in front, ample space for wood shed or other buildings, and school gardens at the back. The wood shed, which will serve also as a tool shed, is usually most conveniently located in the rear of the school house and near the gardens. The closets, when outside, should be at the rear of the other buildings, and instead of being the most prominent feature of the grounds, as has usually been the case, they should be screened from view by trees and shrubs. Until the trees and shrubs grow high enough, a lattice screen should be put up. This may be covered with Virginia Creeper or strong annual climbers such as Wild Cucumber, or Japanese Hop; but the sooner a permanent screen of evergreen trees or tall flowering shrubs is provided the better.

Grading and Levelling the Grounds.

It is taken for granted that a site will be chosen which is naturally well drained. If the grounds are not as dry as may be desirable, under-draining will be helpful. Whether the grounds are level or rolling, it is usually necessary to plow up the whole lot to prepare the land for seeding with suitable grasses. Any grading necessary should be done as soon as possible after the ground is plowed. The play grounds should be made fairly level or with only a slight grade to insure good surface drainage. The grounds about the school house should slope gently from the foundation walls, not only to afford good drainage but to give prominence to the building. Wherever much subsoil has to be moved in the grading down of knolls or in excavating for the building, it should be used in filling up low places where it can be well covered with several inches of good surface soil. This is important, for it is impossible to get a good lawn or growth of any kind upon hard, inert subsoil.

Making the Lawns.

The more thoroughly the land is worked before seeding down, the better for the lawn. This is a case where the old-fashioned summer fallowing can be practised to advantage. It helps to rot the old sod, destroys weeds, and prepares a good bed for grass seeds. As a final preparation, there is nothing like going over the whole ground with a garden rake and making the surface as smooth as possible.

The best kind of seed for the lawns and play grounds is a mixture in equal parts by weight of blue grass, red top grass, and white Dutch clover. These may be bought separately from any of the leading seedsmen and should be thoroughly mixed before sowing. The mixture should be sown at the rate of about 50 or 60 pounds per acre. It should be sown on a still day when the wind will not prevent an even distribution of the lighter seed. The land should then be lightly harrowed and rolled to cover the seed and insure quick germination. If the soil is light and likely to be poached by the horses' feet, it is better to use a garden rake to cover the seed and a light roller which can be run by hand.

The work of lawn-making may be done at any time of the year, but if much grading and levelling is necessary, it is well to do it during the summer and autumn and leave the seeding till the following spring. This gives the filled parts of the ground a chance to settle before spring, so that there will be no uneven settling of the ground after it is seeded. The best time to sow grass seeds is as early as the ground can be conveniently worked in the spring. Seeding may be done during the summer; but, unless there is plenty of moisture in the soil, the results are more or less uncertain, while autumn seeding often results in the grass being badly heaved out of the ground the first winter.

In a favorable season the grass should form a fairly good sward in two or three months. The oftener it is mowed, and the less it is used as a play ground the first year, the better. The sod then becomes thick enough to stand considerable use without injury.

Keeping the Grass Cut.

Some means should be provided to keep the grass cut. Too often such provision is entirely neglected and the playground becomes little better than a hay field, or a pasture plot for the neighbors' cattle. This should not be tolerated. A good lawn mower should form part of the school ground equipment, and an allowance should be made to the caretaker to keep the grass properly cut. In some cases the teacher and pupils look after the cutting and the grounds as part of the school garden work. This is a good plan and can be made an object lesson in the care of home grounds. In rural districts where lawn mowers and caretakers are not so common, the grounds may be kept in very respectable condition with the ordinary farm mower, the cutter bar of which should be set low and the knives kept sharp. If one of the trustees or a neighboring farmer undertakes this work and mows the whole grounds as often as the grass gets high enough for the mower knives to catch it, the country school grounds may be kept in just as fine condition as any of the city grounds. The use of the farm mower is made all the more practicable where the grounds are not barricaded with unnecessary fences.

Walks and Drives.

Walks and drives are not in themselves ornamental, but they are more or less necessary, and they either make or mar the appearance of the place according as they are properly or improperly located and constructed. On small grounds or where the building is close to the road, a single entrance and straight walk is all that is needed; but where the grounds are large enough and the building is back some distance from the road, an entrance at each side of the grounds, with walks laid out in easy, graceful curves towards the building, is far more attractive. Walks and drives are more expensive to construct and more difficult to keep in good condition than lawn, and therefore should not be any more extensive than is really necessary. In most cases there should be no wagon road on the school grounds as the fuel supply is brought in but once or twice during the year, and this may be done at a time when driving over the grass will do little harm. Any injury done in this way may be easily repaired by filling in the ruts and sowing a little fresh grass seed.

The most suitable material for the construction of walks depends largely upon the local surroundings. In towns and cities where concrete is largely used, a concrete walk will be most in keeping with the surroundings; but in rural districts where the children often walk a mile or more to school along country road sides, a well-made gravel walk or cinder path is suitable. In the construction of such walks it is well to dig out the good surface soil and fill in the bottom of the walk with coarse gravel or coal ashes, and finish off on top with fine screened gravel which can be rolled down firm and will not be loose under foot.

Planting Trees.

Nothing adds more to the beauty and suitability of school grounds than a good collection of judiciously planted and well grown trees. In the trees we find a great variety of useful and ornamental qualities. The evergreens are particularly valuable to protect the buildings and grounds from the sweep of cold winds, while the deciduous trees give shade and comfort during the hot days.

The school-ground collection should contain as great a variety as possible, especially of the native trees adapted to the locality, in order that the children may unconsciously grow familiar with them. Bulletin 155 of the Ontario Agricultural College, which may be had upon application to the Department of Agriculture, Parliament Buildings, Toronto, contains a list of the species indigenous in Ontario.

On the accompanying plans only a few of the most important kinds are mentioned, the object of these plans being more to suggest how the trees should be arranged upon the grounds than to furnish a list of what kinds should be used. Around the boundaries of the grounds should be planted some of the largest shade trees, such as maple, elm, oak, or linden. These should be at least thirty feet apart to allow for the full development of the top. Alternating with these on the sides of the grounds most exposed to the prevailing cold winds should be planted some of the strong growing evergreens, such as spruce, cedar, or pines, whichever may

be best adapted to the locality and soil. Where the grounds are large enough to admit of more than boundary planting, groups of various kinds of trees of smaller growth may be planted, particularly in the corners, where they will not unduly crowd upon the play grounds. Isolated specimens may stand out here and there at the sides and the rear of the buildings to give nearer shade and form a suitable background for the building.

In the planting of home-grounds it is important to note carefully the outlook from the principal windows of the house, or the view points on the ground, and to leave vistas or openings here and there in the planting through which beautiful views may be had beyond the boundaries. This may not be quite so important on school grounds, where the children are not supposed to spend their time looking out of the windows, yet it is well to arrange the planting so as to preserve any particularly beautiful view which may be obtained from the grounds and at the same time exclude from view any unsightly object which might mar the outlook.

Ornamental Shrubs.

When Nature has bestowed upon us such a wealth of ornamental flowering shrubs, it is surprising that they are so sparingly used. They are particularly valuable for planting on small grounds where there is not much room for large trees. As a rule, they can be most satisfactorily arranged in irregular groups or clumps in nooks or corners about the grounds or buildings, or along the walks as indicated on the accompanying plans.

One very common mistake is scattering them all over the front lawn. This part of the lawn should be kept more or less open, in order that the building may stand out as the central feature in a pretty landscape picture, the trees and shrubs at the sides and the rear forming a beautiful background.

When making a collection of flowering shrubs, the aim should be to cover the season with bloom as nearly as possible from early to late, and to have as great a variety as possible of those shrubs which are hardy in the section. The following list includes a few of the most desirable of those which have been tested at the Ontario Agricultural College, Guelph, and whatever proves hardy at Guelph will generally succeed elsewhere in the Province. For southern sections of the Province many other choice kinds might be added that are not hardy at Guelph. The following list is given in the order of the season of bloom, and covers the season fairly well from early to late:

Golden Bell (*Forsythia suspensa*), an open spreading bush five or six feet in height. The large yellow bell-shaped flowers appear before the leaves about the end of April and last two or three weeks. It should be planted against a dark background, such as evergreens, to show to advantage.

Golden Currant (*Ribes aureum*), a hardy, vigorous bush six or eight feet in height; bears an abundance of bright yellow flowers, having a spicy fragrance. The bloom appears about the beginning of May and lasts a couple of weeks.

Japan Quince (*Cydonia Japonica*), a showy bush six or eight feet in height with glossy green foliage. The flowers are large and showy,

varying in color from brilliant scarlet in some varieties to pink and white in others. They appear about the middle of May and last nearly three weeks.

Siberian Pea-tree (*Caragana frutescens*), a very hardy, showy little bush about five or six feet in height. It has a luxuriance of fine bright green foliage, which appears early in the season and is followed about the 24th of May with an abundance of clusters of pea-shaped yellow flowers.

Lilacs (*Syringa vulgaris*). The common lilac is so well known as to need no description. Of late years a great many new varieties have been introduced with single and double flowers, ranging in color from white and cream to pink and dark purple. These are in bloom about the 24th of May, and with a good selection of varieties the season may be extended a month or more.

Bechtel's Double Flowering Crab (*Pyrus angustifolia*). This is a hardy little crab apple tree, which bears large double pink blossoms an inch or more across. At a distance they look like small roses and are very fragrant. The bloom appears about the first of June and last about two weeks.

Van Houttei's Spiraea (*Spiraea Van Houttei*). Among thirty varieties of Spiraeas which have been tested at Guelph, this is one of the best. It makes a graceful symmetrical bush about five feet in height, with slender drooping twigs. The bloom is very profuse, pure white, and appears about the first week in June. Other good varieties are the Golden Spiraea, which grows six or eight feet in height and has a bright yellow foliage, and the Anthony Waterer, a dwarf variety about three feet high, bearing a profusion of pink flowers.

Bush Honeysuckles (*Lonicera Tartarica*). These are very hardy, beautiful shrubs growing eight or ten feet in height. The bloom is very abundant every year, appearing about the first week in June and lasting a couple of weeks. It is followed by showy red or orange berries which make the bush attractive after the bloom is gone. There are red, pink and white varieties, all of which are deserving of a place on the school grounds.

Snowball (*Viburnum opulus*). This is a hardy free-growing shrub about ten feet high, bearing large round clusters of pure white flowers which look like snowballs. It blooms about the first week of June and lasts a couple of weeks.

Weigela (*Diervilla rosea*). This is a handsome bush which, although not extremely hardy, grows up freely from the roots even if the top is frozen back. It makes a bush five or six feet in height, which bears large bell-shaped, rose-colored flowers, appearing about the first week of June and lasting two or three weeks.

Garland Syringa (*Philadelphus coronarius*). The Syringas, or Mock Oranges, as they are sometimes called, are handsome shrubs varying in height from ten to twenty feet. They bear large, pure white, fragrant blossoms which appear about the middle of June and last a couple of weeks.

Purple Fringe (*Rhus cotinus*), a hardy thrifty shrub which grows ten or twelve feet high. About the middle of July it comes in bloom, and from then on till autumn it is covered with curious feathery plumes which are very showy.

Hardy Hydrangea (*Hydrangea paniculata*) This is a somewhat straggling growing shrub which may become six or eight feet high, but is the better of being pruned back every spring in the same way as roses. It bears large panicles of white flowers which appear about the middle of August and last three or four weeks.

Vines and Climbers.

There are a number of hardy ornamental vines that may be used very effectively in many ways upon the school grounds. One of the best of these, because of its vigor and extreme hardiness, is the Virginia Creeper. It serves a useful purpose when grown on a lattice, to screen from view the outhouses; and it may also be used to cover a side of the school building and wood shed.

To cover the walls of a brick or stone building there is nothing better than the Boston Ivy (*Ampelopsis Veitchii*), but unfortunately this is not hardy enough for northern parts of the Province. There is a variety of the Virginia Creeper (*Ampelopsis quinquefolia*, var. *hirsuta*), which clings to brick or stone almost as tenaciously as the Boston Ivy, and may be used when the latter is too tender.

The bright green foliage of such climbers makes a very pretty contrast with the bare walls of the buildings, and helps to give the school and its surroundings a home-like appearance.

If the grounds are enclosed with fences, which are always more or less unsightly, the fence may be used as a trellis for a varied collection of vines and climbers, such as the Trumpet Flower (*Tecoma radicans*), Climbing Honeysuckles (*Lonicera Belgica* and *Halleana*), Dutchman's Pipe (*Aristolochia siphon*), and a number of the varieties of the Clematis, a few of the best of which are *Clematis coccinea*, *C. Jackmanni*, and *C. paniculata*.

Since the display of the Union Jack is becoming common on school grounds, a neat flag pole for this purpose should be prominently placed near the front of the building, and its beauty may be greatly enhanced by planting beside it a strong growing twiner, such as the Climbing Bitter Sweet (*Celastrus scandens*), or Cinnamon Vine (*Dioscorea batatas*), which will soon climb and festoon it with ropes of lovely green.

Obtaining Nursery Stock.

Many of the trees, shrubs, and vines already mentioned may be found growing wild in neighboring woods, and thrifty young plants may be obtained for the labor of moving them. When not so obtainable, they may be procured from any of the leading nurseries of the Province at but small cost. In ordering stock from the nurseries, it is advisable to make out a full list of what is wanted, writing for quotations and ordering early in the winter so that the stock may be had in good time for planting early in the spring.

Flower Borders.

Every school ground should have its flower beds or borders, so that the children may become familiar with and learn to love those beautiful forms which help so much to make school and home surroundings bright and cheerful.

There is an endless variety of beautiful flowers which deserve a place on the school grounds. For convenience of culture they may be divided into two classes; the annuals, of which the seed has to be sown every year, and the perennials, which last from year to year. Wherever school gardens are adopted, the annuals should occupy a section of each child's plot in the school garden. Among the desirable kinds for this purpose are the following: Asters, Candytuft, Coreopsis, California Poppy, Mignonette, Nasturtium, Phlox, Portulaca, Pinks, Poppies, Scabiosa, Salpiglossis, Stocks, Petunias, Verbenas, and Zinnias. The hardy herbaceous perennials are on the whole the most satisfactory kinds of flowers for school or home grounds. They are best grown in a long border, varying in width from three to six feet. When well stocked with a good selection of varieties such a border soon becomes "a thing of beauty and a joy forever." When once established, it produces a succession of bloom of one kind or another throughout the season, and is particularly showy in the spring and early summer months when the children are at school and naturally take more notice of the floral beauties of the year.

As a perennial border is expected to become a more or less permanent feature of the grounds, its location should be carefully considered. On small grounds, where there are no school gardens, it may be located around the foundation walls of the building. Where school gardens are a part of the school equipment, one or two borders may be made adjoining the garden plots, or when the grounds are large, the borders may be made a very attractive feature along the walks to the building. These are in far better taste than fancy shaped beds cut out of the greensward in a prominent place on the lawn. The ground for the perennial border should be deeply and thoroughly prepared and made as rich as possible by digging in plenty of well rotted manure. The work of stocking the border may be done at various times throughout the season. Early in the spring is the best time to sow seeds and do most of the planting. The transplanting of seedlings may be done at any time during the season when the ground is moist. Hardy bulbs and tuberous rooted plants should be planted in the fall. The children should be invited to co-operate in stocking the perennial border with plants. Often they can spare from their home garden, roots of such plants as the Bleeding Heart, Iris, Lily, Lily of the Valley, Paeony, Phlox, etc., and, on the other hand, as the plants increase and require thinning out, the school border should become a distributing centre to the homes. The artistic arrangement of plants in such a border affords plenty of room for the exercise of judgment and good taste, and may be made a pleasing study for those who wish to cultivate an eye for beauty and a love for flowers. No formal blocks or regular straight lines should be attempted. A scattering or grouping in irregular profusion is more natural and pleasing. Rearranging may be done from time to time as experience may prove desirable. Further information on

this subject may be found in a bulletin on the "Mixed Flower Border," which may be obtained on application to the Horticultural Department of the Ontario Agricultural College, Guelph.

Choice Herbaceous Perennials.

The following are a few of the best of the hardy herbaceous perennials which should have a place in the school flower border: Golden Glow, Larkspurs, Hollyhocks, Sunflowers, Columbines, Campanulas, Bleeding Hearts, Irises, Lillies, Paeonies, Oriental and Iceland Poppies, Daisies, Lillies of the Valley, Violets, Phlox, Periwinkle, and the spring flowering bulbs such as Snowdrops, Scillas, Crocuses, Tulips, Daffodils, etc. For a more extended list see the bulletin referred to above.

The Wild Flower Garden.

A very interesting and instructive garden on any school grounds may be made of the wild flowers and ferns of the locality. Such a garden is best located in a shady spot at the back of the grounds. It should be stocked by the children under the direction of the teacher, and it may be made practically valuable as a field for botanical study.

Note.

A supply of this circular will be sent to the Public School Inspector, by whom each School Board will be provided with a copy. The circular will remain the property of the School Board for reference by the trustees and the teachers. When needed, additional copies may be obtained from the Inspector at his discretion.

Mr. H. L. Hutt, B.S.A., Professor of Horticulture in the Ontario Agricultural College, Guelph, will be glad to assist in any way possible, School Boards and Inspectors who desire further information on the subject of School Grounds Improvement.



A relic of the days when school houses were built in the bush.



A beautiful building amid beautiful surroundings. Note the spacious open lawn in front and the grouping of trees and shrubs at the sides and rear to give a setting and frame for the landscape picture.



THE FIRST SCHOOLHOUSE ON ST. JOSEPH'S ISLAND, ALGOMA.

Bare, neglected, wind-swept; for many years this was used as a school, yet never a tree, shrub, or vine was planted near it.



THE RITTENHOUSE SCHOOL, JORDAN HARBOUR.

Where trees, shrubs and vines have been used to make the school surroundings homelike.



An excellent school building but with bare, unadorned surroundings.



THE VINELAND SCHOOL (Louth and Clinton U.S.S.)

A neat attractive school. The result of hearty co-operation among trustees, teacher and pupils.



THE CONSOLIDATED SCHOOL, GUELPH.

Give the girls a chance. At least half of the grounds should be theirs.



THE CONSOLIDATED SCHOOL, GUELPH.

Fun for the boys and girls, under the direction of the teacher, on well planted and cleanly kept grounds. A "Thread-the-needle Race."



ON ST. JOSEPH'S ISLAND

Keeping the grass cut. Three animated mowers at work on the roadside, after having cleaned up everything inside the fence. Building too close to road.



THE VINELAND SCHOOL.

Where both teachers and scholars take a pride in the school and its surroundings.



GALT COLLEGIATE INSTITUTE.

A plain substantial building amid pleasant surroundings. Note the curved walk and entrance from the side of the grounds, leaving a spacious lawn in front.



A school ground fence, an offence to the eye and a disgrace to the section.



THE VINELAND SCHOOL.

School gardens should be a part of the school equipment in every up-to-date rural school. These beautiful gardens occupy about one-third of the school grounds and were made on land broken out of sod last spring. Note the absence of fences in front.



THE RITTENHOUSE SCHOOL.

School closets screened from view by trees, vines and shrubbery.



THE MARDEN SCHOOL, WELLINGTON CO.

A school garden where country children learn lessons of the most practical value.



THE VINELAND SCHOOL.

Children who will be better citizens because of their attractive school surroundings and school garden experiences.



THE RITTENHOUSE SCHOOL.

What child would not like to attend such a school? Does not everything here impart an air of welcome?



THE RITTENHOUSE SCHOOL.

A corner of the grounds in flower. A pioneer in school garden work.

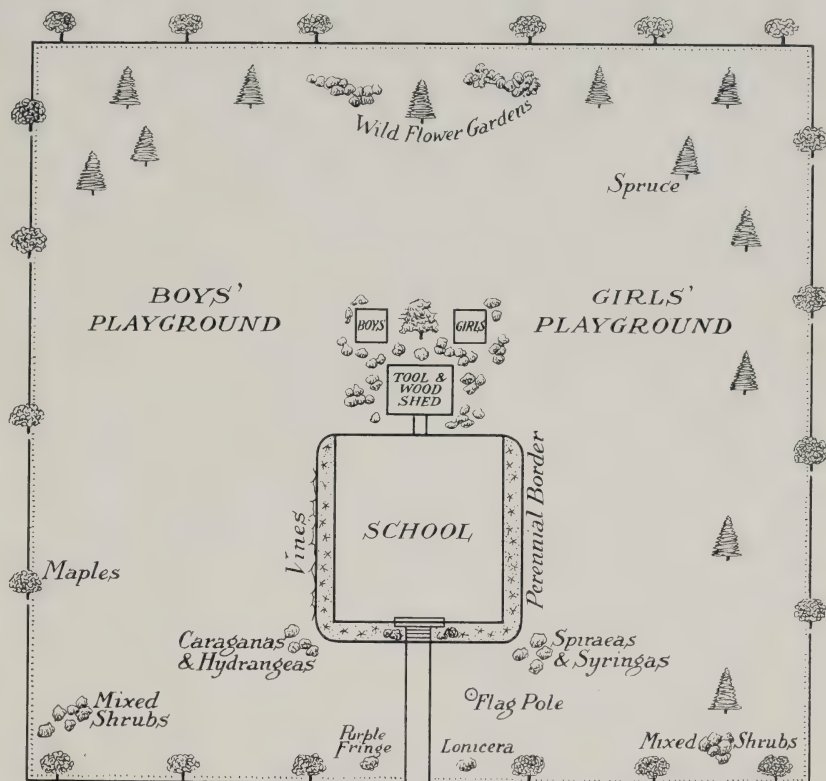


The Grounds of the Aylmer Collegiate Institute.



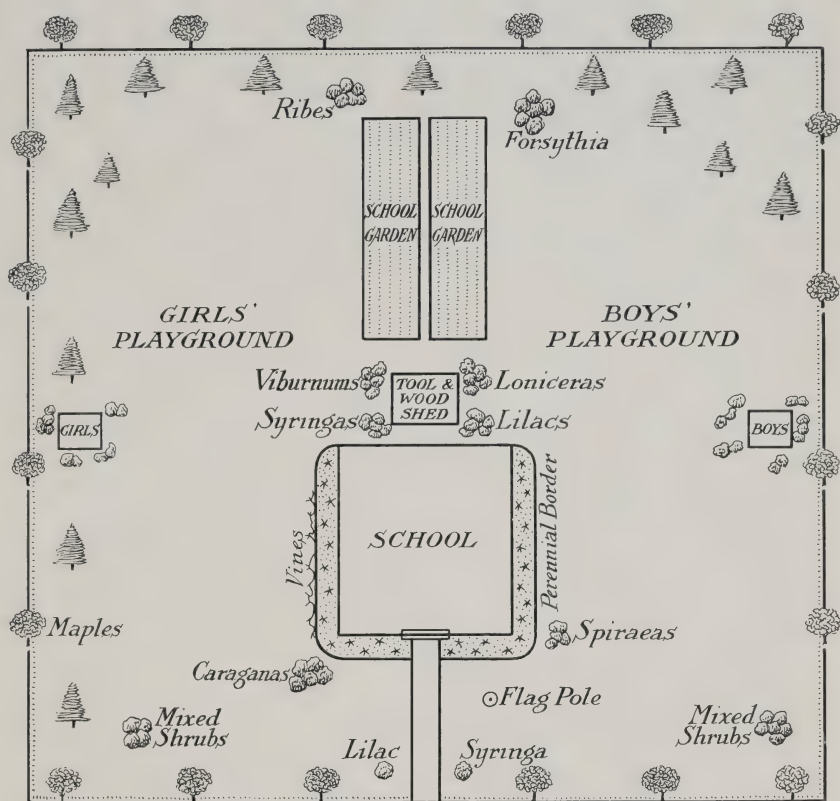
THE GOLDIANA FERN.

The wild flower garden stocked with the ferns and wild flowers of the locality, may be made a valuable feature on any school grounds.

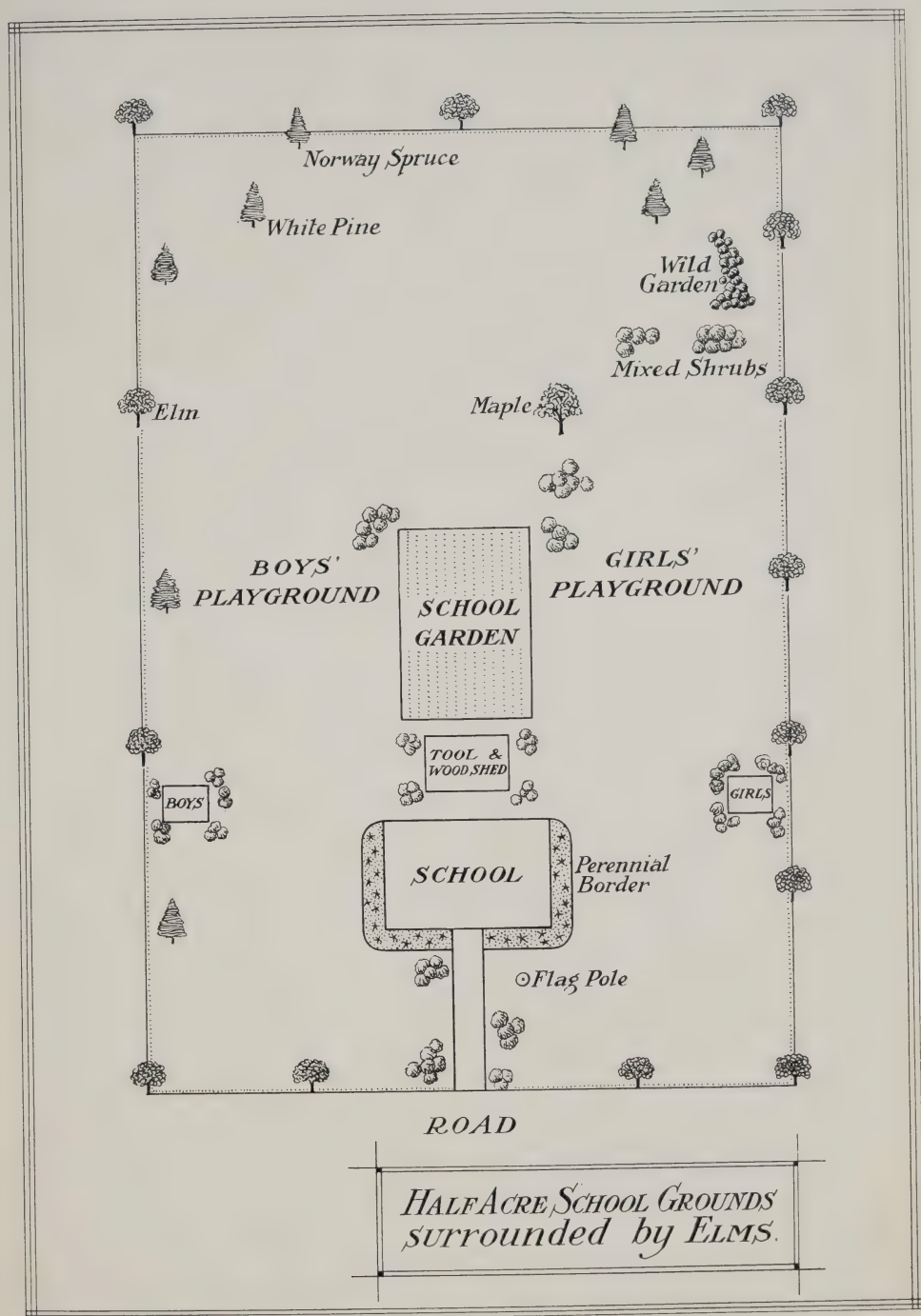


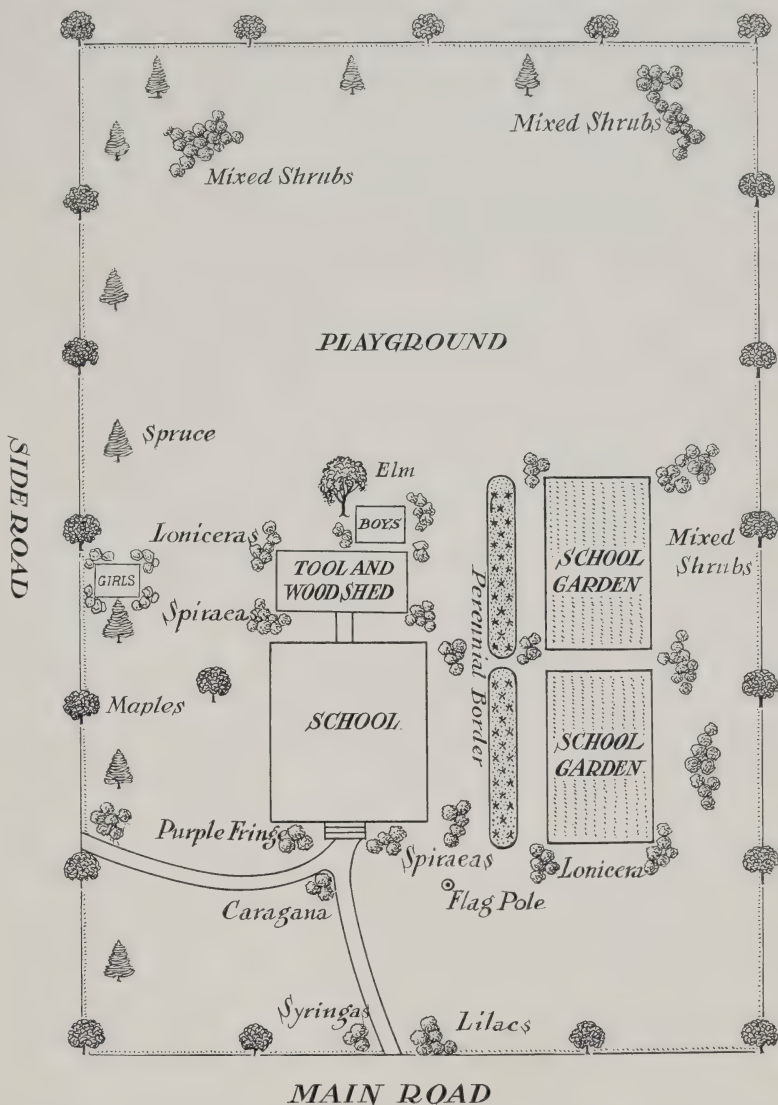
ROAD

HALF ACRE SCHOOL GROUND
WITH FLOWER BORDER
AROUND BUILDING

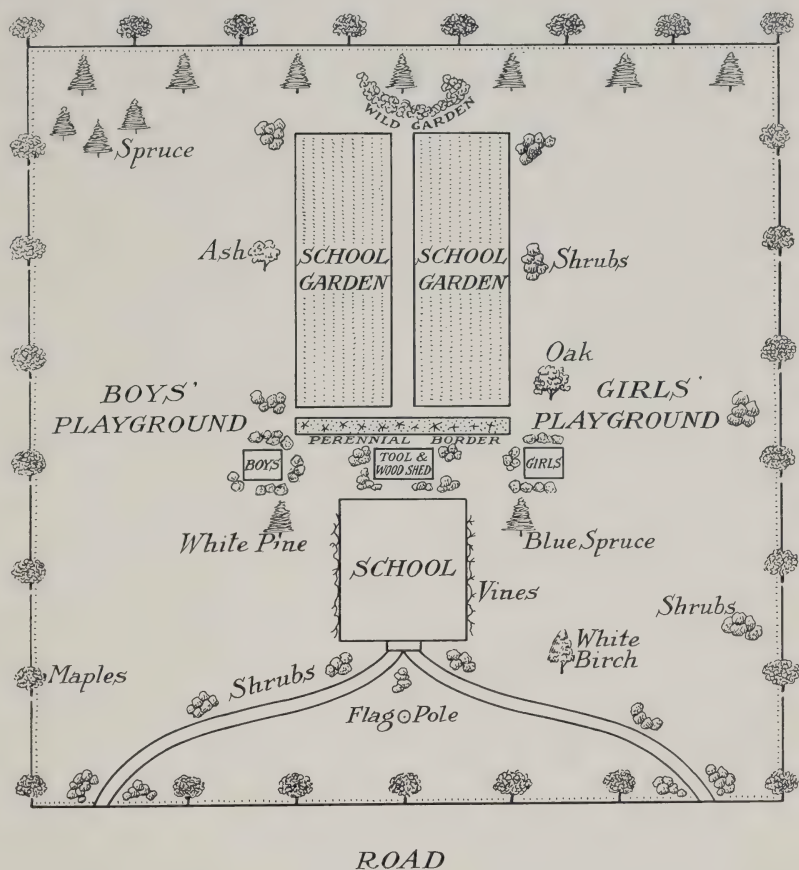


HALF ACRE SCHOOL GROUND
WITH FLOWER BORDER
AROUND SCHOOL.

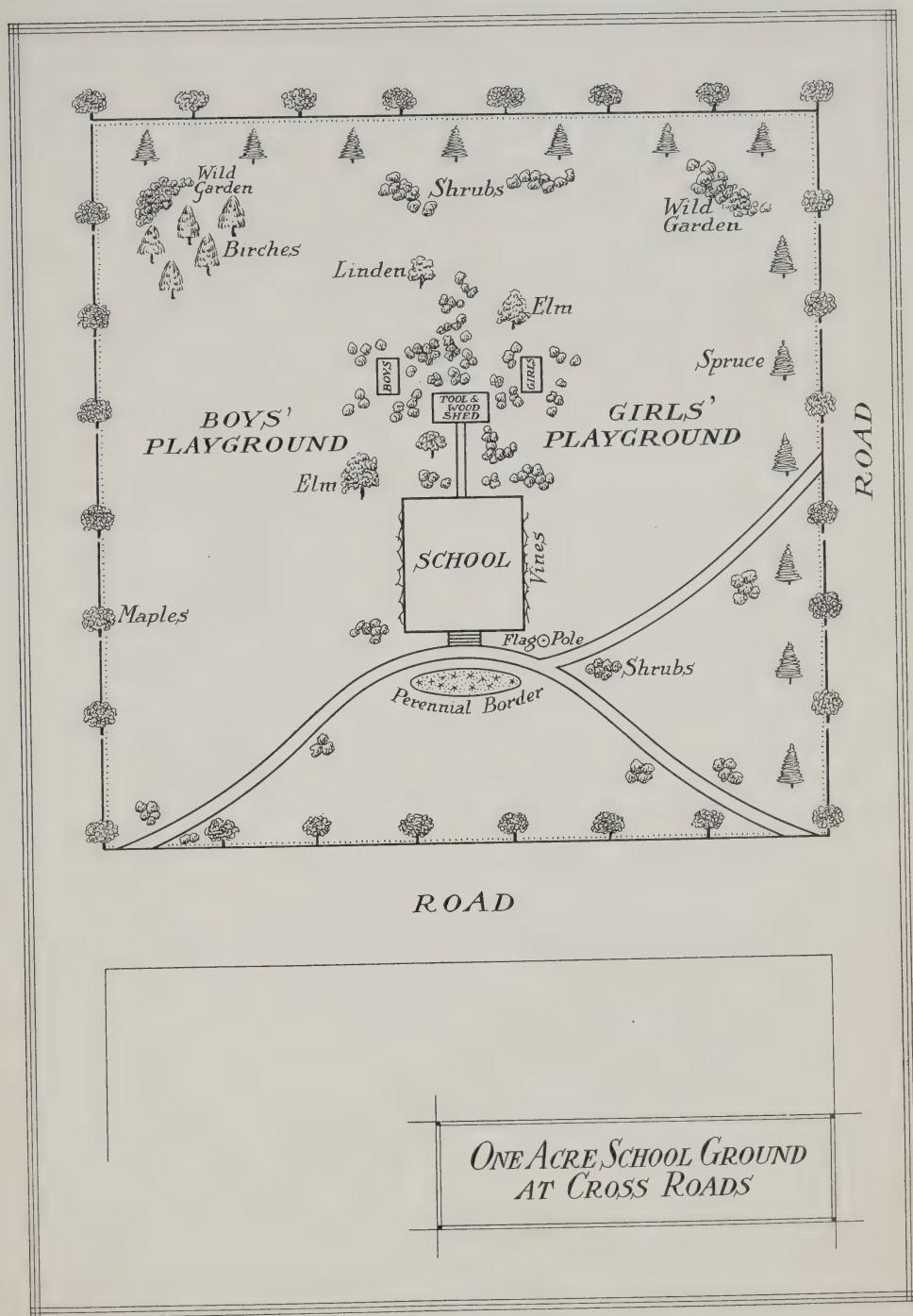


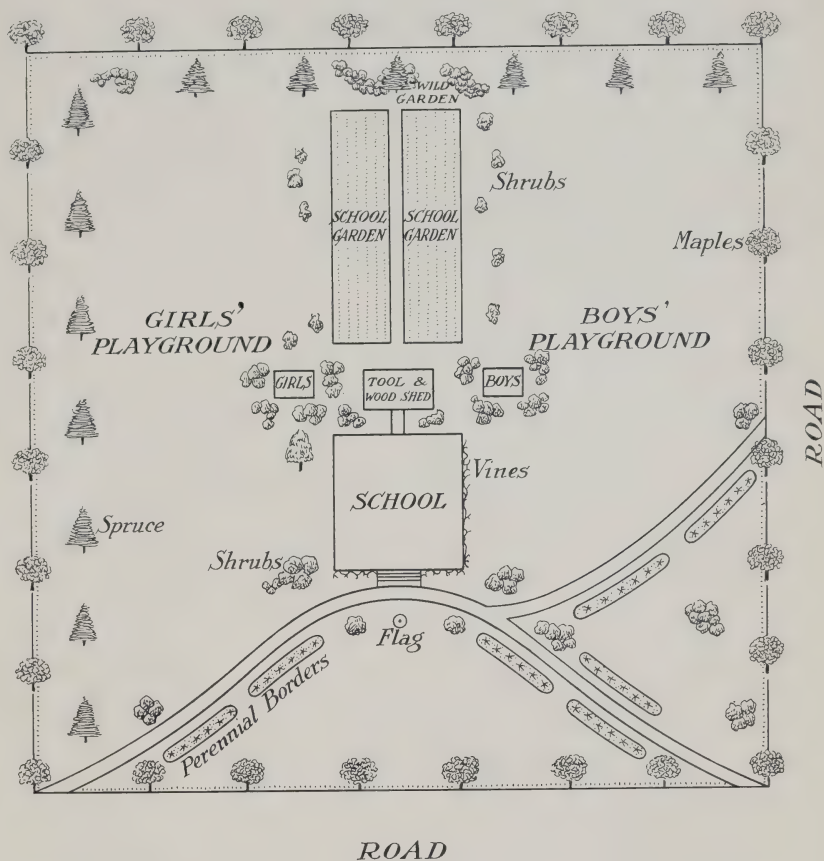


HALF ACRE SCHOOL GROUND
WITH SCHOOL GARDENS

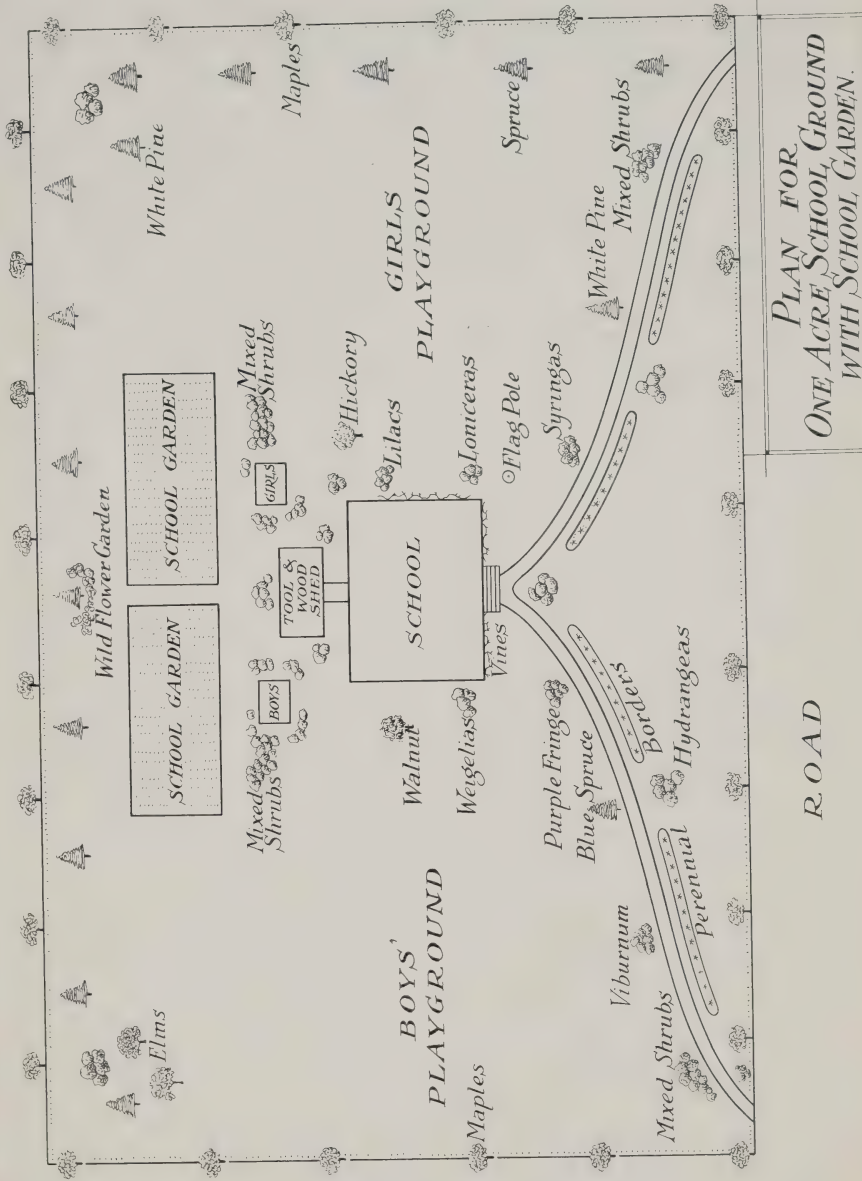


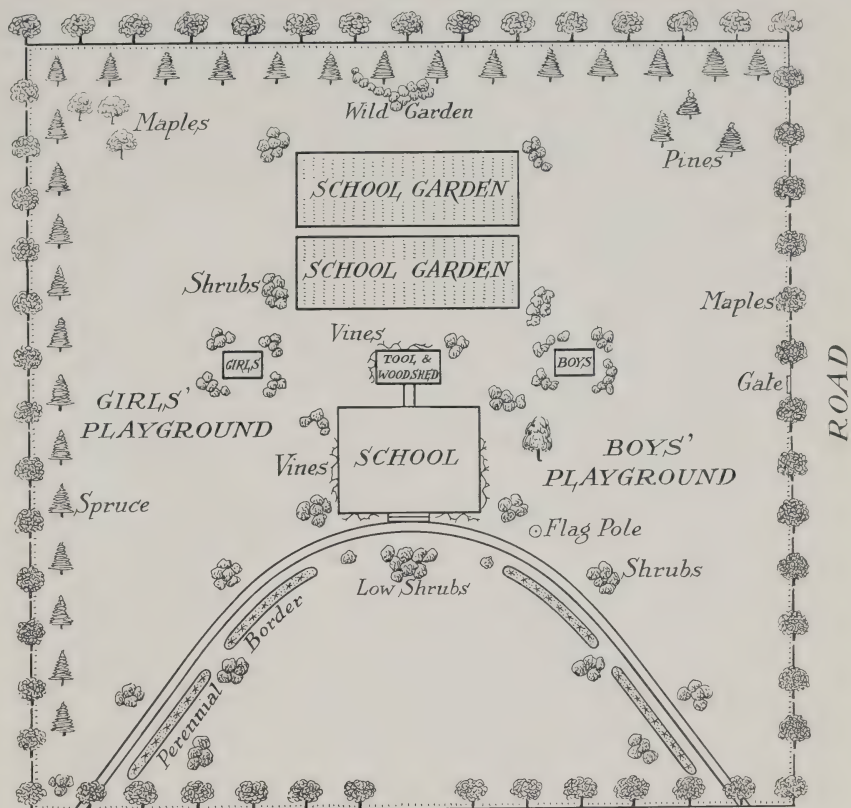
PLAN FOR ONE ACRE SCHOOL GROUND
WITH SCHOOL GARDENS





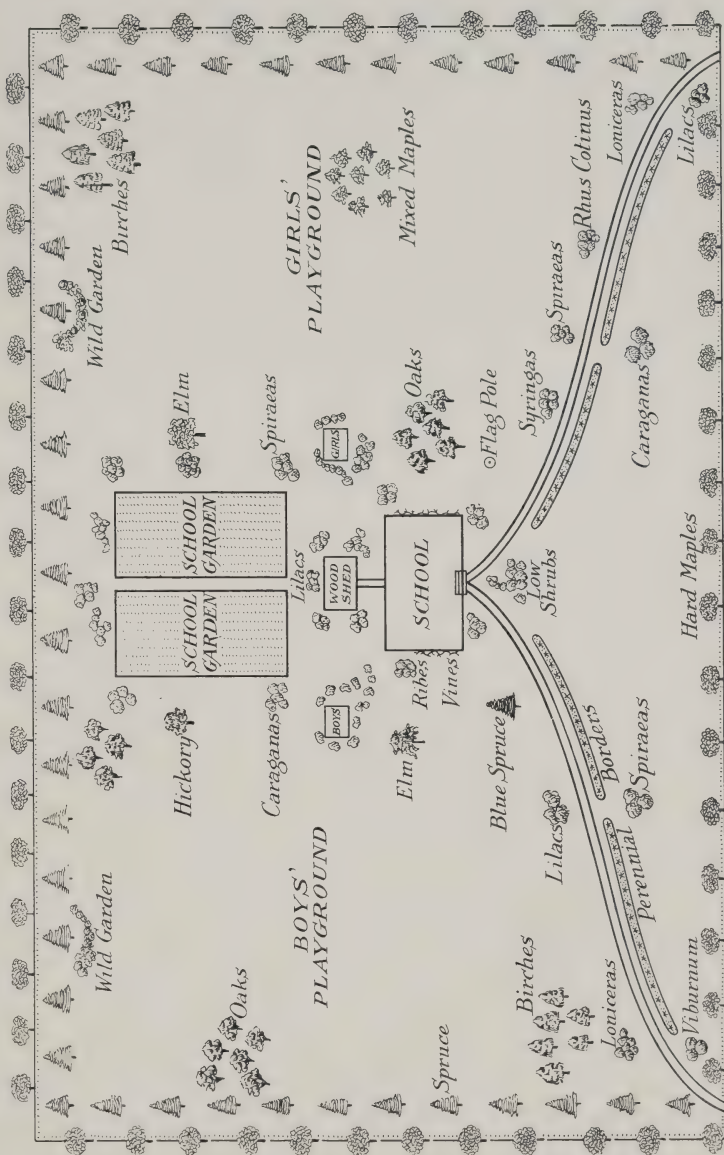
PLAN FOR ONE ACRE SCHOOL GROUND
AT CROSS ROADS.





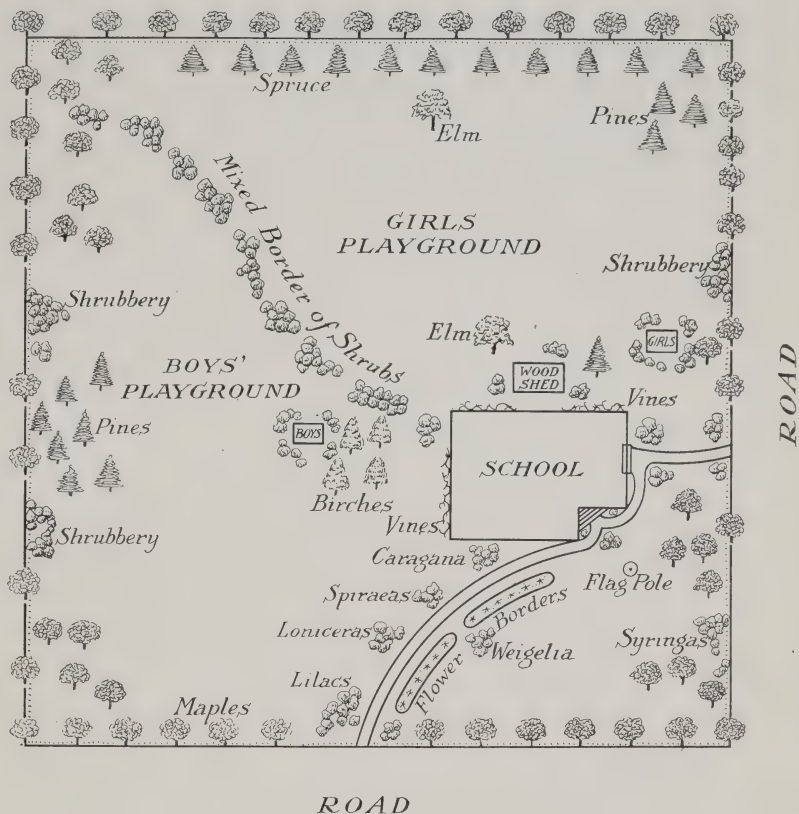
ROAD

PLAN FOR
TWO ACRE SCHOOL GROUND.

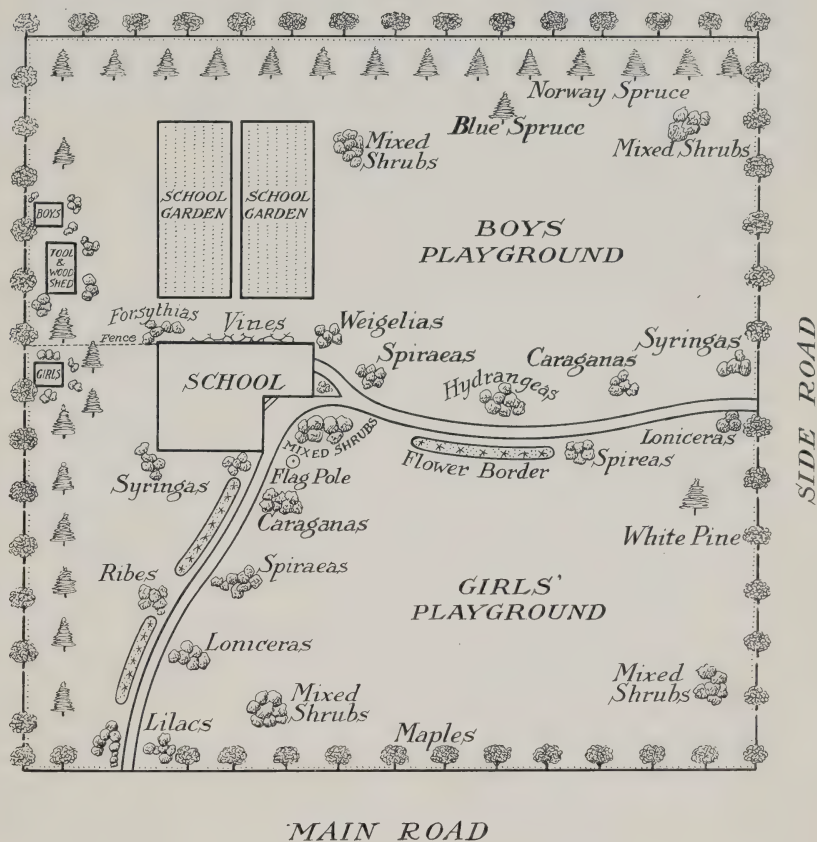


ROAD

PLAN FOR
Two Acre School Ground.



PLAN OF TWO ACRE SCHOOL GROUND
WITH BUILDING ON THE
CORNER OF THE LOT



PLAN OF TWO ACRE SCHOOL GROUND
WITH BUILDING & GARDEN
AT BACK OF THE LOT.

Proposed Detailed

SYLLABUS

of the work of each of
the eight grades of the

Public School Course for Ontario

Presented to the Inspectors' and
Public School Departments of the
Ontario Educational Association

Easter 1909



TORONTO:
L. K. CAMERON, Printer to the King's Most Excellent Majesty
1909

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TORONTO, April 5th, 1909.

To the Public School Teachers' and Public School Inspectors' Departments of the Ontario Educational Association:—

Your Joint Committee appointed to revise the Course of Study for Public Schools and divide the work into Junior and Senior Grades submits the following Provisional Course for consideration and trial with the hope that in it may be found a basis on which a practical, complete and well-correlated Course may be constructed.

Your Committee found the task entrusted to them one of greater magnitude and responsibility than was at first realized. The scattered membership of the Committee made it quite impossible to hold as many meetings as the full consideration of all details required, and, of necessity, much work had to be done by correspondence which is a slower and less satisfactory method than personal conference. It was only by making most strenuous efforts that the report could be presented at this meeting of the Ontario Educational Association. As a result the correlation of the Courses did not receive sufficient attention and some overlapping may be discovered.

While the Committee was not unanimous upon all matters, the Course as a whole represents the views of a majority of the members.

In what may be considered the newer subjects of the Course, viz.: Nature Study, Art, Manual Training and Household Science, your Committee recognizes that a much fuller Course is presented than can be brought at once into successful operation, and believes that this work can be extended only as the better training of teachers in these subjects and increased facilities may permit.

The different Courses were prepared by sub-committees, and copies of their work sent to the other members for consideration prior to their adoption by the whole Committee. This procedure could not be followed in the subjects of Art, Constructive Work and Household Science, owing to delay in the preparation of these Courses, and in consequence the Committee does not assume the same responsibility regarding the correlation of these Courses and their suitability as it does for the other Courses.

Your Committee considers it advisable that a Course of Study should be accompanied by manuals containing full explanation of the Courses, with necessary suggestions and illustrations for the guidance of the teachers.

The Committee desires to acknowledge the hearty co-operation of Hon. Dr. Pyne, Minister of Education, in defraying the necessary expenses, for without this material aid the work could neither have been carried on nor the result submitted in its present form.

Signed on behalf of the Committee { W. F. CHAPMAN, Chairman.
HENRY WARD, Secretary.

Committee



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The foregoing report was presented and the action taken is shown in the following resolutions :—

THE INSPECTORS' DEPARTMENT.

Resolved, "That the Report of the Committee as embodied in the 'Proposed Detailed Syllabus' be received but that the consideration of its adoption be postponed until our next meeting, a year hence, and that in the meantime the Education Department be requested to print sufficient copies of the Syllabus to have one placed in each school for trial during the year."

THE PUBLIC SCHOOL DEPARTMENT.

Resolved that, "Whereas the Joint Committee of the Inspectors' and the Public School Departments has given much time and thought to the production of a suggestive syllabus of work ;

"And whereas, through the courtesy and assistance of the Minister of Education, Hon. Dr. Pyne, we have had the result of the findings of this Committee placed in our hands in printed form, with a request for criticism and suggested improvement ;

"And whereas, in the opinion of the Public School Department of the O. E. A., it is very desirable that the Public School Teachers of the Province should have the opportunity of putting this syllabus to a practical test in their school-rooms ;

"Therefore, we respectfully request the Education Department to take no action in issuing a syllabus of work for Public Schools until after next year's meeting of this Association ;

"And we authorize the Executive of the Public School Department of the O. E. A. to give this subject a prominent place on next year's programme."

THE EXECUTIVE OF THE PUBLIC SCHOOL DEPARTMENT.

Therefore, the Executive of the Public School Department of the O. E. A. invites the teachers of the Province, individually, or in groups, or associations, to consider, test, and criticize the suggested syllabus as to the subjects included, the amount and nature of the matter suggested, the order in which this matter is arranged, and even the wording that is employed, and to send any suggestions or criticisms to Chas. G. Fraser, 10 Sylvan Avenue, Toronto, Secretary, to be used by committees which are being appointed by the Executive—one for each subject in the suggested syllabus.

Church Street School,
Toronto, May 3, 1909.

Reading, Literature and Supplementary Reading.

General Suggestions :

READING AND LITERATURE.—In both Reading and Literature throughout the course, the objects are intelligent and intelligible natural reading and the creation of a taste for the best kinds of books. But, in the Reading class, the main object is the former ; and, in the Literature class, the latter. Silent reading should receive attention as well as oral reading, the results of both being tested by questions or by oral or written reproduction. In Literature, the books should be chiefly narrative and descriptive, being obtained from the School or Public Library or provided by the Board or the pupils themselves, as may be determined by the Board. Even when a supply of suitable books is obtainable, the teacher, in the lower classes in particular, should read to the pupils or give them in his own words much of the best literature. From the first also the pupils should be required to memorize and recite choice selections, not merely to cultivate the verbal memory but to learn to appreciate beauty of thought and expression and to store the mind with literature that will enrich their lives. The reading should be made to correlate as much as possible with composition and the other subjects of the school programme.

Teach pupils (1) to read to listeners rather than to books, and (2) to become good listeners, by occasionally requiring them to lay aside books and listen to the one who is reading. The teacher should test their ability to listen by questions, or by asking them to tell the substance of what they have heard read.

NOTE.—Your Committee found a distinct division of opinion on the method of presenting primary reading, and decided to present two courses A and B for your consideration in Grade I.

Reading for Grade 1 or Junior I. (Course A)

General Suggestions.

Oral reading is a complex operation consisting of (1) word recognition, (2) recognition in the author's thought, and (3) the expression of this thought. Each of these operations must be mastered in the order named and primary attention should be devoted to *each in turn* in the process of teaching oral reading. No pupil should be permitted to read a sentence aloud before he can recognize the words in it and extract the thought from it.

By means of oral language-work, the pupil's knowledge of the oral language, at least during the process of learning word-recognition, must be kept well in advance of his work in recognition.

Word recognition being then the fundamental basis, that method of teaching it which makes the child most independent and gives him the power of rapid and accurate word recognition in the shortest time

must be the best. For this purpose, the symbol becomes the unit of recognition.

That "the sentence is the unit of thought and expression" is the statement of many educationists; but it is certainly self-evident that the word is the unit of thought-expression to an infant and also to any one attempting to converse in a language which he understands very imperfectly; hence, the word as the unit of thought-expression, is the logical basis for the first stages of the recognition of visible language which is new to the child; but as soon as the pupil gains sufficient facility in recognition, the sentence becomes the unit of thought-expression.

Grade I or Junior I.

The teacher has only two things to accomplish in training pupils to recognize language in its visible form.

- (1). To teach the process of combining sounds to form words.
- (2). To teach the sounds and powers of the letters and combinations.

1. Combination

The pupils should be able to recognize suitable words quickly when their elements are sounded at intervals and should also be able to separate suitable words into their elements before any letter forms are associated in their minds with these sounds, *e.g.*, the teacher asks the pupils to point to the child whose name she says and then sounds slowly S-a-m, N-e-ll, etc., or says, "Do as I tell you," r-u-n, etc.

The pupils may then be allowed to separate words, at first taking those chosen by the teacher.

2. Association of Symbols with Sounds

The word "ma" is a good one with which to commence this step, because it is short, each sound can be prolonged and four words can be made from the two sounds. Introduce the word through their oral language and have the pupils individually and collectively give the sounds of which it is composed, then have the first sound prolonged and tell the pupils you are going to make the letter which "says that sound." The teacher writes the letter carefully on the board and *teaches* the pupils how to make it. Proceed with the second sound in a similar way. The pupils may now be asked to write "ma," which means to separate it into its sounds and write the symbol which indicates each sound. Now ask pupils to write "am," etc. The letters should not at first be joined but simply made one after another and script should be taught first. Follow these *ear problems* with *eye problems* by asking the pupils to whisper to you what the words "am," "ma," etc., which have been written on the black-board, say. The children have now learned all the operations and have had placed in their hands the *golden key* which will enable them to open all the doors to literature.

In introducing new letters, make the pupils conscious of their necessity before giving them, thus after asking them to write "am" "ma", etc., ask them to write "mat." They find they can write "m a" but hesitate at the third sound. The teacher then teaches its form as before and then gives such words as tam, at, etc. In this way each word written reviews the use of the letters previously taught and there is thus a maximum of repetition of process and a minimum of mechanical repetition. In the same way teach "p" and "s." With these five symbols twenty-seven words can be formed and the pupils should acquire a ready facility in solving both eye and ear problems before special difficulties are introduced. To this end plenty of exercise should be given in word building at seats and at blackboard and eye and ear problems in class.

After taking about twelve letters—m, a, t, p, s, r, o, c, n, e, l and h, we prepare the way for sentence building and sentence reading. The first step is to teach the proper joining of letters to form a word, the second the use of "a" and "the" with words, the third the use of the capital at the beginning and fourth the use of the period at the end.

Early sentence building and sentence reading should be of such a nature that the child gets the complete thought of the sentence before attempting to say it. As each child gathers the "story" he comes and whispers it to the teacher. Thus, just so soon as the pupil reaches this stage the sentence becomes the unit of thought expression. The necessary steps leading to this expression are:—(1) The child learns to recognize the words. (2) He joins them at first with difficulty but finally with ease. (3) He gathers and thinks the whole thought. (4) He expresses it for you without reference to the written words. (5) He reads the written sentences expressively.

We now come to one of the greatest difficulties met in teaching phonics, viz.—the introduction of unphonetic words. Two rules may be given for their introduction. (1) Introduce them when they become necessary in sentence building. (2) As far as possible introduce them after the sound or combination of which they are exceptions. All such words should be kept in a list for constant reference and it is surprising what a small list is required by the thoughtful phonic teacher.

After about a dozen more sounds f, d, i, b, u, g, j and (a, e, i, o, u, made long by final silent e) have been taken the pupils should be introduced to print with which they will find very little difficulty if introduced slowly and plenty of practice be given in it by means of writing on slates from short printed sentences either on the blackboard or on small cards.

The remainder of the symbols and combinations may be introduced much more rapidly and little difficulty will be experienced by the teacher who makes the principles involved her own and works out the details to suit the circumstances of the class. The order should be that which gives the greatest power of expressing in visible form, words with which the pupil is already familiar in oral language. The following has been found to be an excellent order for this purpose;—ee, ar, v, sh, oo,

(y long), ch, w, k, er, (th soft and hard), ay (ai), or, ea, x, (y short), ow (ou), z, oy (oi), aw (au), oa, ng, wh, ei, qu, ir, ew, nk, (a after w and before l), ck, gh, (ow as long o), ur, tion (sion), ie, ph, (c soft), kn, (g soft), wr.

Grade 1. or Junior I.

Course B.

Assignment of Work :

Sentences, verses and words based upon stories, rhymes, etc., and read from blackboard, charts and primers. Sight words. Phonic exercises. Stories from pictures. Dramatizing. Use of Supplementary books. Memorizing.

SUGGESTIONS.

Reading and Literature :

Sight reading: Short sentences and paragraphs, based upon conversations with pupils, or upon simple stories and rhymes with which the pupils are familiar, should be read from the blackboard. Action-sentences may also be introduced early in the course. Later on books should be used. Pupils should be taught to read ideas and thoughts, not words. Thought-getting should *precede* thought-expression. This can usually be developed by judicious questioning by the teacher, and by silent reading by the pupil. This course will ensure good expression. Expression is the result of thinking and imitation. In case the pupil really thinks and feels what he tries to express and fails to express it adequately, the teacher may occasionally express it for him, even exaggerating the points which were weak in the pupil's reading. Later in the course, the pupil should not only grasp the sentence-thoughts one by one, but he must be taught to think sentence-thoughts together into a larger whole. Back of even the most simple group of sentences is a larger thought or picture, in the development of which each sentence plays its part. Whether the pupil gets these larger thoughts will depend largely upon the way in which the teacher conducts the work. In order to read sentences correctly, the practice of reading but one sentence at a time should be avoided.

Phonic Exercises :

While the word or other sight method is being used for teaching the reading of sentences, lessons should be given daily on the sounds of single letters and combinations of letters. The correct enunciation of letter-sounds in combination is exceedingly important, both as a drill in articulation and as a preparation for word recognition. The first sounds taught should be such as are (1) easily made, (2) easily prolonged

without alteration in character, (3) common to many words in the vocabulary of the child. The combinations should be such as are (1) easily learned as wholes, e.g. ; *sh, th, or*; (2) useful for reading e.g. ; *ing, tion, ight*. The sounds of letters should be developed from familiar "sight" or "key" words e.g. ; *c* from *cat*, *r* from *rat*. Diacritical marks should be avoided as much as possible.

As a preparation for the recognition and pronunciation of new words, the teacher should slowly sound words which the pupils will recognize by ear. Words taught by the phonic method should be introduced into the sentence-reading very gradually, so that the expression may not suffer. In time, as the pupil's perception of the blending of sounds to form words grows quicker and clearer, the words occurring in the reading matter should be recognized, as far as possible, by sounds. Before leaving this grade, the names of all the letters of the alphabet should be known in order.

Stories

These make a good preparation for reading by arousing the child's interest, holding his attention and stimulating his thought. They thus serve to make learning to read a real pleasure.

Rhymes

These are a rapid and effective means of acquiring an initial stock of sight-words by associating the spoken word which has meaning to the child with the printed and written forms. On the other hand the building up of a vocabulary of disconnected words leads to mechanical reading.

Pictures

They help to attract attention, arouse interest and stimulate thought. A good picture contains the "kernel" of the story which the child is expected to read from the text. Its study, therefore, should be a preparation for reading. The teacher, by questions and suggestions should direct the observation and thought of the pupil.

Dramatizing

The dramatizing faculty, which is natural in most children, may be made an important agency in the successful teaching of reading. Instead of simply reading what the actors of the story do or say, the children, as actors, do and say those things themselves. The resulting acts and speech show spontaneity and originality and hence are natural and expressive. Reading thus becomes realistic.

Reading to the pupils

Selections for this purpose may, at first, include such nursery rhymes as "Mother Hubbard," "Cock Robin," simple

stories of child life, anecdotes of animals, the simpler folk stories, such as "The Three Bears." Later on the selections may include simple narrative poems such as "The Owl and the Pussy Cat," "Who Stole the Bird's Nest?" The simpler of Andersen's tales. A number of the best Primers should be placed in the school library for supplementary reading.

Memorizing

At least four lines of poetry, or an equivalent amount of prose, should be committed to memory each week. The selections chosen for this purpose may be such as the following: "Twinkle, Twinkle Little Star," "Little Drops of Water," "What Does Little Birdie Say,?" "Now the Day is Over."

Grade II. or Senior I.

Assignment of Work

The authorized First Reader. Reading to the pupils, Supplementary reading from other readers and from selections corresponding to this grade. Sight reading, exercises in breathing, articulation and vocalizing, Memorizing.

SUGGESTIONS.

Reading and Literature

The reading lessons proper should be preceded by, (1), such conversations as may be necessary to prepare the minds of the pupils for the appreciation of the subject matter; (2) exercises that will ensure the prompt recognition of the form, the correct pronunciation, and an understanding of the meaning of new words. The meaning of new words should be acquired without attempting formal definitions. To encourage thoughtful reading and to ensure ease in reading aloud, silent reading should usually precede oral reading. In training pupils to get the full thought without the aid of oral reading, the teacher may require them to state the substance of what has been read silently. In order that the pupil may learn to read poetry with pleasure it is sometimes desirable that the teacher should read the poem to them first.

Phonic Exercises

The aim of phonic training in this grade should be to cultivate (1) distinct articulation, (2) pure tone, and (3) the power to read new words and to pronounce them correctly. The exercises should include drills on initial and final consonants, e.g., *t* in *cat*, *ts* in *cats*, *d* in *and*; and practice in the correct

sounds like *oi* in *soil*, *u* in *just*, *ir* in *girl*. etc., and *ness*, *ment*, *ing*, etc., as final syllables.

Supplementary Reading

- (a) To be read aloud by the teacher : Selections from Whittier's "Child Life," stories of animal life ; folk stories and fairy tales, e.g., "Sleeping Beauty," Andersen's "Ugly Duckling," Longfellow's "Hiawatha" "Cheiron," "King Arthur."
- (b) To be read by the pupils : In addition to the authorized Reader, the reading of this grade should include other Readers of similar grade ; simple poems, fables and folk stories, e.g., Stevenson's, "A Child's Garden of Verses" (first part), Scudder's "Fables and Folk Stories." Occasional exercises should be given in sight reading.

Memorizing

At least four lines of poetry each week, or an equivalent amount of prose, should be committed to memory by each pupil. Selections may be made from the following : "The Swing," "The Little Nut," "Christmas Morning," "What I should do," "The Bright Side," "October's Party," "Spring," "Evening Hymn."

Grade III. or Junior II.

Assignment of work

The authorized Second Book, (first part)—Supplementary reading from other readers and books appropriate to this grade. Reading to the pupils. Use of dictionary begun, Phonic drill continued. Exercises in breathing, articulation and vocalization. Use of library.

Reading and Literature

The reading lesson proper should be preceded by only such conversations as may be necessary to prepare the minds of the pupils for the proper appreciation of the subject matter. The teacher should bear in mind that correct expression in oral reading is dependent upon the reader's appreciation of the thought and feeling. In all reading lessons the teacher should occasionally read aloud, not for the purpose of direct imitation by the pupils, but to increase the interest in the subject matter and to set a standard of good oral reading.

The meaning of Words

Pupils should be trained to depend largely on the context for the meanings of words and be trained in the intelligent use of the dictionary.

Phonic drill

Exercises on the production of sounds of letters, particularly on the sounds of the vowels and of groups of consonants difficult of enunciation.

Supplementary Reading

- (a) To be read aloud by the teacher : The selections may include simple and interesting poems by Cowper, Wordsworth, Longfellow, Whittier, Tennyson ; stories of animals, such as Thompson-Seton's ; myths in good literary form, such as Firth's "Stories of old Greece ;" "The Argonauts ;" "Beauty and the Beast ;" "The Ware-Wolf" and a long story to cultivate the power of sustained interest, such as Sewell's "Black Beauty."
- (b) To be read by the pupils : In addition to the authorized Reader, several books suitable to this grade should be read by the pupils, such as Stevenson's "A Child's Garden of Verses" ("The Child Alone," "Garden Days") ; Andrew's "Seven Little Sisters," and books to supplement the work of this grade in other subjects.

Memorizing

A minimum of six lines per week. Selections may be made from the following : "Morning Hymn," "A Wake-Up Song," "The Land of Nod," "One, Two, Three," Psalm XXIII.

Grade IV. or Senior. II.

Assignment of Work

The authorized Second Book (last part). Supplementary readers and other books suitable for this grade. The meanings of words. Reading to the pupils. Exercises in breathing, articulation, and vocalization. Use of the library.

SUGGESTIONS.

Reading and Literature

See suggestions under "Grade III."

Supplementary Reading

- (a) Reading to the pupils : Browning's "Pied Piper of Hamelin ;" myths in good literary form, such as Kupfer's "Stories of Long Ago ;" Hawthorne's "Wonder Book ;" nature stories ; stories from the Old Testament ; and a long story to cultivate the power of sustained interest, such as "Alice in Wonderland," or "Rab and His Friends."

- (b) Reading by the Pupils : In addition to the authorized Second Reader, several books suitable to this grade should be used for supplementary reading, such as other school readers ; Andersen's " Fairy Tales " parts of " Gulliver's Travels," and " Robinson Crusoe ;" legends and tales of adventure ; Ruskin's " King of the Golden River ;" and books to supplement the work in other subjects.

Memorizing

A minimum of six lines per week. Selections may be made from the following : " Little Lamb, Who Made Thee," " Abide With Me," " March," " September," " The Sluggard," " The Wind," " Indian Summer," " All Things Bright and Beautiful," Proverbs and maxims.

Grade V. or Junior III.

Assignment of Work

Intelligent and intelligible natural reading. The authorized Third Reader (first part). Supplementary reading. Use of the dictionary taught and practised. Exercises in breathing, articulation and vocalization. Use of library books.

SUGGESTIONS.

Reading and Literature

Special attention should be given to the literature of the poetical selections of the authorized Reader.

For suggestions concerning expression, etc., see preceding grades. The occasional use of a book from the school library from which the pupils read by turns will improve the character of the oral reading and at the same time train the pupils to listen intently.

Drill exercises, as in preceding grades, particular attention being given to distinctness of enunciation, correctness of pronunciation, and proper use of the voice, in speaking and reading.

Supplementary Reading

The following may be used for Supplementary Reading : Longfellow's Hiawatha (complete); Stockton's " Fanciful Tales," and books to supplement the work of this grade in nature, geography, history and hygiene, such as Burrough's " Squirrels and other Fur-Bearers," Kipling's first " Jungle Book," Kingsley's " Greek Heroes," Miller's " Brief Biographies Supplementing Canadian History."

Memorizing

The minimum number of lines should be six per week. Selections may be made from the following: Carlyle's "To-Day," Stevenson's "A Morning Prayer," Garrick's "Hearts of Oak," Darnell's "The Maple," "Wisdom the Supreme Prize" (Proverbs III), Tennyson's "The Book."

Grade VI. or Senior III.

Assignment of Work

Intelligent and intelligible natural reading. The authorized Third Reader (second part). Supplementary reading. Study of special selections as literature. Use of the dictionary. Exercises in breathing, articulation, and vocalization. Use of the school library books.

SUGGESTIONS.

Reading and Literature

Generally, the first reading of a selection chosen for appreciative study should be rapid, in order that the pupils may get a conception of the piece of literature as a whole; part of the reading may be done by the teacher, part by the pupils in class, and part by the pupils at home. During the second reading of it, only those difficulties which stand in the way of essential meanings should be considered; attention should be given to the thought and feeling expressed rather than to the form of the selection.

Drill exercises on expression, articulation, etc., as in the previous grades.

Supplementary Reading

Books suited to pupils of this grade may be used, such as Goldsmith's "Deserted Village"; Lamb's "Adventures of Ulysses"; Hawthorne's "Wonder Book"; and books to supplement the work of this grade in nature, geography, history and hygiene, such as Burrough's "Birds and Bees". The power of sustained interest is cultivated by the reading of long selections of complete works of considerable length. See suggestions under preceding grades.

Informal talks on books read at home, with a view to arousing an interest in good reading, are of great value. In recommending books, the teacher should try to direct the reading tastes and interests of the individual pupils along the lines of the best literature.

Memorizing

The minimum number of lines to be memorized should be six per week. Selections should be made from poems previously taught, such as Wilfred Campbell's "After Glow"; Moore's "The Last Rose of Summer"; Newman's "Lead Kindly Light"; Bryant's "The Gladness of Nature"; Tennyson's "The Bugle Song", and "Crossing the Bar", Whittier's "The Life for Which I Long".

Grade VII. or Junior IV.

Assignment of work

Intelligent and intelligible natural reading—Fourth Reader. (first part) appreciative reading of at least one masterpiece of prose and one of poetry. Ethical lessons. Use of library books.

SUGGESTIONS.

Reading and Literature

The following is suggested as a general plan for the appreciative reading of a masterpiece of literature :

- (1) Reading for general conception ; some portions read by the teacher for the purpose of creating a right atmosphere ; other portions read aloud by pupils in class ; minor portions read by pupils at home.
- (2) Reading for the more careful treatment of important parts, the aim being to bring about an appreciation of the beauty of the selection rather than to accumulate a fund of information concerning words or allusions.
- (3) Reading for effective oral rendering of those parts of the selection which make special appeals to the pupils' imagination and sympathy.

Supplementary reading

The following are suggested, in addition to the Reader, for supplementary work : Longfellow's "Courtship of Miles Standish," and parts of "Tales of a Wayside Inn ;" Irving's "Rip Van Winkle," and "Sleepy Hollow ;" Hawthorne's "Great Stone Face"; Scott's "Lady of the Lake." Also books to supplement the work of this grade in nature, geography and history.

Memorization

Minimum number of lines should be eight per week. Selections may be made from the following which should be first studied

carefully in class : Kipling's "The Children's song"; Shakespeare's "Ingratitude ;" Robert's "Canada" ; Lampman's "In November" ; Cowper's "I would rather enter on my list of friends" ; Moore's "Oft in the Stilly Night."

Grade VIII. or Senior IV.

Assignment of work

Intelligent and intelligible natural reading. The authorized Fourth Reader (last part). Supplementary reading, appreciative reading of selections from the Reader, and of at least one masterpiece of prose and one of poetry. Exercises in breathing, articulation, and vocalization. Memory work. Use of library books.

SUGGESTIONS.

Reading and Literature

The general plan for the reading of masterpieces as outlined in the preceding grade is recommended. The pupil's knowledge of grammar may be used to make clear constructions that may be obscure or complex but the analysis should not be permitted to detract from the appreciation of the beauty of the selection.

The simpler "figures of speech," such as simile, metaphor, personification, should be brought to the notice of pupils as illustrations of them occur in their reading; the effect of these figures on the clearness, the emphasis, or the beauty of style should be noted.

Supplementary reading

The careful reading of at least four suitable works selected by the Principal, for each pupil, from a list of supplementary reading in English literature prepared by the Public School Inspector.

Memorization

The minimum number of lines should be eight per week. Selections may be made from such as the following : Thomson's "Rule Britannia" ; "The Commandment and the Reward" (Proverbs III) ; Lampman's "Evening" ; Collins' "How Sleep the Brave Who Sink to Rest" ; "God is Our Strength" (Ps. 46) ; White's "Mysterious Night," etc.

General Suggestions

SPELLING

A lesson in spelling should be *taught* each day. Ten new words are enough for a lesson and no new word should be taught until the pupils know its meaning and can use it properly in a sentence. All unfamiliar words unsuited to the age and ability of the child should be excluded. All new words or words presenting difficulty in the pupils' written English, should be taught.

In teaching derivatives and compounds, attention should be drawn to the way in which the word is built up, so that the child may recognize the smaller and more familiar word contained in the larger. Emphasize also, by means of colored chalk, or by some other device, the difficult part or parts in a word, e.g., the first *a* in *separate* and thus direct the attention of the pupil, particularly to that part. Train senior pupils to examine a new word, with a view to finding out and mastering its difficulty.

Pupils should be taught how to use the dictionary, and to do so always when in doubt as to the correct spelling of a word they may wish to use. Inculcate the habit of correct spelling by insisting upon it in all written work done by the pupils. Arouse enthusiasm for correct spelling by keeping a record of the progress of the class in the subject, and by an occasional spelling match between classes or parts of classes. Each pupil should keep a permanent record of his mis-spelled words for review.

Grade I. or Junior I.

The writing from dictation of (a) Simple phonetic words recognized by the pupils, (b) Non-phonetic words commonly used by the pupil in writing. Neat transcription of words or sentences written on black-board. Use of capitals in spelling : (1) proper names, (2) the first word of a sentence, (3) the pronoun *I*. The dictation of simple sentences containing the words taught. Word building for seat work. Distinct enunciation should form a basis for correct spelling. Oral spelling should not be required till near the end of this grade. Weekly reviews.

Grade II. or Senior I.

Daily written and oral drill in : phonetic words containing such combinations as, *bl*, *sk*, etc ; phonetic words, properly grouped, selected from Reader and from the pupils' written English ; simple non-phonetic words, properly grouped, selected from Reader and from the pupils' written English. Frequent reviews of lists of words commonly mis-spelled by the pupils and the use of these in sentences constructed by the pupils. Dictation exercises embodying the words taught. Weekly reviews.

Grade III. or Junior II.

Oral and written drill on : Words in which pupils substitute or omit sounds, e.g. chimley for chimney, east for yeast. Words selected as in previous grades—List to include derivatives formed from words ending in silent e, for example move, moving. Teach the rule governing these. The simplest homonyms, such as hear, here ; their, there ; threw, through. Use of capitals ; first line of poetry ; days of week. Abbreviations as outlined in the composition for this grade. Dictation exercises embodying the words taught. Weekly reviews.

Grade IV. or Senior II.

Continued practice in phonics on points previously taught. Teach use of the common diacritical marks, to prepare pupils to use the dictionary. Oral and written spelling of words from lessons in Reader and from other subjects taught in this grade. Homonyms, e.g. hair, hare ; bury, berry ; flower, flour. Derivatives—Teach formation of derivatives from words ending in a single consonant preceded by a short vowel, e.g. begin, beginning ; occur, occurred. Teach groups of words formed from the same root, e.g. drive, driver, driven, driveway ; bisect, trisect, dissect, section. Teach use of apostrophe in abbreviations and in the possessive case, as outlined in the composition of this grade, e.g. I'm, John's. Teach abbreviations for months, days and those occurring in the other subjects of this grade. Plurals:—Teach change of y to i and f to v in plurals. Dictation exercises containing the words taught. Weekly reviews.

Grade V. or Junior III.

Oral and written work. Words selected from the reading lessons and from words technical to the other subjects taught in this grade. A Speller containing such a list of words may with advantage be introduced in this grade. Dictation exercises from selected lessons in Reader. Homonyms—Review and extend work of previous grades. Formation of derivatives from words ending in "y" preceded by a vowel or consonant, e.g. monkey, monkeys ; merry, merriest ; busy, busily. Capitals and abbreviations reviewed and continued. Simple prefixes and suffixes un, dis, less, ful and the spelling of words in which these are used e.g. disobey, dissolve. Teach the rule governing these.

Grade VI. or Senior III.

Oral and written work. Words selected in the same manner as in Grade V. Dictation exercises continued. Division of words into syllables. A few Anglo-Saxon roots, such as true, faith. Meaning and use of the Anglo-Saxon prefixes and suffixes mis, ness, ar, er.

Ordinary rules for spelling. The Speller should be used in this and succeeding grades.

Grade VII. Junior IV.

Oral and written work. Words selected in the same manner as in Grade V. and words in common use. Dictation exercises to review and extend the proper use of capitals and abbreviations. Anglo-Saxon prefixes—out, fore ; Anglo-Saxon suffixes—ly, ling, ish, en, ship, dom ; Latin prefixes—con, sub, re, trans ; Latin suffixes—ous, or, ist. Review special features of former limits, such as, homonyms, abbreviations, syllabic analysis and formation of derivatives. Formation of possessive singular and plural. Dictation exercises ; reviewing the work of this and previous grades.

Grade VIII. or Senior IV.

Oral and written work. Words selected as in previous grades. Dictation exercises to place words having the same sound but different meanings in their correct setting. Review of rules taught in previous grades for spelling of derivatives. Review of common words frequently mis-spelled. Prefixes and suffixes continued. The more important Latin and Greek roots with their English derivatives. Dictation exercises reviewing the work of this and previous grades.

COMPOSITION AND GRAMMAR.

Grade I, or Junior I.

Mainly oral composition.

Material for lessons :—conversations, stories, familiar objects, games, rhymes.

Talks about pet animals, birds, leaves, flowers ; interesting incidents within the pupils' experience ; particular days : as Christmas, New Year's day, Easter ; the seasons.

Reproduction of bright stories and fairy tales.

Memorization of simple, short, poems ; nursery rhymes and apt sentences.

Personating the characters in stories.

In the primary grade, the compositions should be brief and very little written composition should be attempted, until the children have attained proficiency in writing and in oral composition.

Every lesson should be a lesson in language and correct expression. The pupil should not be repressed, but by kindness and appreciative manner, should be encouraged to talk freely and fluently.

In oral work, note incorrect expressions, faulty articulation, and wrong use of words. At other times drill systematically and frequently on enunciation and the forms that should have been used.

Grade II, or Senior I.

Review and continuation of work of Grade I.

Telling aloud brief interesting stories ; talks about actions, incidents, familiar objects and nature work ; lessons chiefly oral and mainly narrative.

Stories and talks about our domestic animals, trees, dwellings, foods, occupations and seasons.

Reproduction of stories, real and imaginary; personating characters in the story; telling stories suggested by pictures; completing stories.

Memory gems.

Teach the names of the days of the week, the months, the seasons, particular days ; such as, Thanksgiving day, Christmas, New Year's day, Good Friday, Empire day, Dominion day.

Teach Christian name, surname, full name, initials, pupil's address ; the simpler forms of plurals by adding s and es ; the use of personal pronouns.

The proper use of a, an ; there, their ; lie, lay ; sit, sat, set ; write, right ; here, hear, heard ; went, gone ; give, gave, given ; did, done ; saw, seen.

Written work ; easy transcription from the reader, with attention to capitals and punctuation, as period, question mark.

Combining two simple statements.

Reproduction of very short stories and fairy tales, after oral expression of the thoughts and proper arrangement of same.

Writing their own brief stories from dictation.

Drill persistently on proper forms of expression, to correct errors in speech made in oral composition.

Grade III. or Junior II.

Review and continuation of Oral and Written Work, as outlined for Grade II, and in connection with Geography, History and Nature Study.

Development of good models of composition, especially letters. Oral description and then written description of familiar places, objects, and pictures ; reproduction of stories told or read.

Practise simple letter writing.

Memorize good selections from literature.

Capitals : names of persons, places, the deity, days, months, titles ; the first word in a sentence ; the first word in a line of poetry.

Punctuation : period, question mark, quotation marks, comma before quotation marks ; the use of the apostrophe to denote possession.

Abbreviations: Mr., Mrs., Dr., Co., Ont., Rev., Prov., No., Esq., Sr., Jr., can't, don't, doesn't, wasn't, I'll, N., S., E., W., days of week and months of year—as, Mon., Jan.

Addresses: Pupil's name, street, city or post office and province; teacher's name and address.

Proper use of this, these; that, those; come, came; sang, sung; rung; who, which; much, many; easy homonyms: flour, flower; week, weak; threw, through; cells, sells; sees, seize; by, buy; cent, sent, scent.

Grade IV. or Senior II.

Review work of previous grades. Careful copying of good sentences, brief model letters, short compositions and memory gems. Oral reproduction of stories; short original stories. Short narratives or easy descriptions of one paragraph.

Oral expression of individual thoughts of pupils on one topic only, order of arrangement of these, combination of the same by one pupil orally under two headings. Written composition to follow oral composition in connection with each subject.

The arranging and writing of thoughts in two paragraphs.

Letter writing continued. Repetition of proper forms to correct common errors in use of words. Punctuation: review, give use of comma in a series and after address.

Grade V. or Junior III.

Review Language work of previous grades.

Continuation of oral work outlined for previous grades; talks by pupils on topics assigned to or chosen by pupils; experiences, observations, objects, pictures, stories, autobiographies.

Correction of English: drill on use of proper forms, to correct pupils' errors.

Have pupils think about a subject and make statements orally. Classify these into two paragraphs. Arrange the sentences in proper order.

Written work: narrative and descriptive composition and letter writing continued. The arrangement of sentences in paragraphs by combining thoughts mentally, expressing them orally and then on paper in proper sequence. The rearrangement of words and phrases; expressing the same idea in other language.

Enlargement of vocabulary: develop accuracy and variety of expression by substituting groups of words for single words and *vice versa* and by proper choice of synonyms. Teach uses of sit, set; did, done; doesn't, don't; lie, lay, laid; there, their; begin, do, got, wear, choose; who, whose, whom.

All rules for Capitals; simple uses of semi-colon and colon.

The sentence; the assertive, interrogative, imperative and exclamatory forms of sentences; Subject and Predicate of these different kinds of simple sentences; identification of the Noun and Verb.

Business forms; simple bill, receipt and order for goods.

Grade VI. or Senior III.

Review, continue and extend the work of the previous grades; correction of errors as indicated in previous grades. Memory selections. Study of choice passages of Literature, narrative or descriptive. Enlargement of vocabulary; proper choice of synonyms and antonyms; writing stories illustrative of the use of given groups of words. Longer talks by pupils; the proper arrangement of these thoughts; combination, orally, of these thoughts under two or more headings.

Oral and written reproduction of longer stories with attention to the unity of the paragraphs; passages to be separated into two or more paragraphs. The continuity of the paragraph. Give selections in which the thoughts are not related in good order and have pupils arrange these properly.

The arrangement and rearrangement of the parts of the sentence for effect; changing from direct to indirect narration.

Letter writing of two or three paragraphs applying the above principles with attention to capitals and punctuation.

Simple business letters, notes, invitations, replies, bills, receipts and orders.

Grammar

Text books should not be used.

Analysis of simple sentences; identification of the different parts of speech, and of adjective and adverbial phrases.

Gender, number and case forms.

Grade VII. or Junior IV.

Composition.

Oral and written work of previous grades continued and extended. Reproduction of stories containing two or more paragraphs, including anecdotes and autobiographical sketches. Letter-writing and business forms of previous grades continued, giving much attention to clearness of thought, freedom of expression, correctness of form and choice of words.

Formal notes of invitation and replies. Business letters, promissory notes.

Original composition, choice of words, synonyms, antonyms and homonyms. Paragraphing as in previous grade. Proper use of capital letters and punctuation marks in all exercises. By repeated

use of proper forms correct errors in the use of: teach, learn; rise up, have got, return back. Exercises in direct and indirect narration; the value of the words, phrases and clauses; the re-arrangement of the same; substituting words. Combining three or more statements into (*a*), a simple sentence, (*b*), a compound sentence. Abbreviations and contractions—the simple abbreviations and contractions in common use reviewed and completed.

Grammar.

Analysis of simple, and easy compound and complex sentences
Identification of all the Parts of Speech.

Classification of Parts of Speech:—

- (*a*) Noun—proper and common: gender-nouns.
- (*b*) Pronouns—personal, demonstrative, interrogative, relative, indefinite.
- (*c*) Adjective—qualifying, quantifying, proper.
- (*d*) Adverb—of time, of place, of manner, of degree.
- (*e*) Verb—transitive and intransitive.

Inflections of the Parts of Speech.

- (*a*) Noun—number and case.
- (*b*) Pronoun—person, number, gender, case.
- (*c*) Adjective and adverb—comparison.

Parsing—classification and inflection as given in this limit; grammatical relation.

Phrases—adjective and adverbial with relation; identification of noun, adjective and adverbial clauses.

Emphasize the proper forms and relations of words to correct common errors of speech.

Grade VIII. or Senior IV.

Oral and written work:

Oral work continued and extended to include (*a*) general discussion of simple topics, (*b*) current events, (*c*) debates on easy subjects.

Review work of previous grades in abbreviations, contractions, punctuation and capitalization.

Summaries of lessons in Literature and History; biographical sketches.

Social and business correspondence, advertisements, business forms.

Essay writing, giving special attention to paragraph structure, unity of idea, continuity of thought and variety of form.

Clear, vivid, and detailed description. Arrangement of sentences and parts of sentences.

Exercises in (*a*) expansion and contraction of phrases and clauses. (*b*) active and passive construction. (*c*) transposition of words, phrases and clauses. (*d*) combining three or more simple statements, to form a simple, a compound, or a complex sentence.

Enlargement of Vocabulary :

Continue exercises in use of synonyms, homonyms, antonyms and choice of words. Exercises to incorporate new words or groups of words.

Meaning and use of prefixes, suffixes and roots most commonly used.

Grammar.

Analysis of simple sentences and of compound and complex sentences of not more than four clauses.

Classification, inflection and relation of the Parts of Speech, completed.

Parsing of words.

Classification and relation of phrases.

Classification and relation of clauses.

Elementary principles of syntax.

HISTORY.**General Suggestions.**

In preparing this public school course in History, the aim has been to present material at each stage which appeals to the sympathy and interest of the child, and is of such a nature as to suit his mental capacity and development at that stage of his life and education. In the first four grades, the work consists of the presentation of (1) Bible characters ; (2) the presentation of conditions of primitive society and its gradual growth and development ; and (3) the consideration of the reasons for the celebration of special holidays which appeal to the interest and patriotism of the child. In the first grade, the work consists of the consideration of the child-life of individuals that have endeared themselves to the hearts of childhood, and that present ideals in conduct and character which are worthy of imitation. In the second grade, hero-worship appeals to the child, hence the heroes selected are of such a nature as will be wholesome ideals for the life of the child, and lead him to see the possibilities of the individual. In the third grade, this is followed by the consideration of stories of companionship—the first steps in the formation of society, and this is a slightly more complex consideration than that of the life of the individual. This has been followed in the fourth grade, by the consideration of the building up of a more complex society, reference being made (1) to the development of the Hebrew nation from the life of an individual through the family, the tribe and the loosely connected tribes to the fully organized nation ; (2) how individuals placed under the simplest primitive conditions, can surround themselves with many of the comforts of society ; and (3) the development of the specialized conditions of modern society from the

primitive conditions of the life of the early settler to the specialized conditions of a populous modern community. In the fifth and sixth grades, provision has been made for the presentation of individual lives and special events in the history of our own country and nation, thus laying a basis for a logical consideration of Canadian and British History in the seventh and eighth grades, which will lead the pupils to know the story of the rise and growth of the cherished privileges and institutions of our nation, to know of the struggles by which they were won, and be able to form a correct estimate of their value.

General for Grades I., II., III., IV.

In these grades, more attention should be given to the correlation of studies, and history should scarcely stand out as a distinct subject. The stories selected should be so arranged as to show the development of the race from its primitive condition to that of the present day, and should provide stories suitable to the development and knowledge of the pupils. The choice of stories, the manner of telling, and the lessons deduced will tax the skill of the best primary teacher.

Grade I. or Junior I.

The following is suggested for this grade :—(1) Bible Child-life ; Moses, Joseph, Samuel. (2) Primitive life ; The Eskimo, the Indian; Backwoods Life in Canada. (3) Special Days ; Thanksgiving, Christmas, Easter, Arbor Day, Dominion Day.

Grade II. or Senior I.

The following is suggested for this grade :—(1) Bible Heroes : Gideon, Samson, David, Goliath, Esther. (2) Heroes from profane History : Horatius, King Alfred, Richard I., Wallace, Uncle Tom, Grace Darling, Little Peter. (3) Special Days : Same as Grade I.

Grade III. or Junior II.

The following is suggested for this grade :—(1) Bible Friendships : Adam and Eve, Abraham and Isaac, Miriam and Moses, Ruth and Naomi, David and Jonathan. (2) Friendships from profane History : Damon and Pythias : (3) Development from Primitive Conditions : The Pilgrim Fathers, The United Empire Loyalists. (4) Special Days : Thanksgiving, Christmas, Easter, Empire Day, Dominion Day.

Grade IV. or Senior II.

The following is suggested for this grade :—(1) Bible characters, developing a nation : Abraham, Moses, Joshua. (2) Development of complex social relations from Primitive conditions : Primitive conditions among first Canadian Settlers, Formation of a Village, Specialization

of occupation, Growth of a Metropolis. (3) Inventions: Watt, Stephenson, Fulton, Edison. (4) Special Days: Same as Grade III.

General Suggestions for Grades V. and VI.

In Grades V. and VI. there should be no attempt to give a thoroughly logical, connected history of either the country or its people, but by means of vivid biographical sketches and interesting accounts of important conditions and events, taken in chronological order, to lay in story, a valuable basis for the future study of British and Canadian History.

Grade V. or Junior III.

The following is a suggestive list in Canadian History :—Our Native Country, The First Inhabitants, Columbus, John and Sebastian Cabot, Cartier, Champlain, The Jesuit Fathers, The Coureurs du Bois, Laval, Frontenac, La Salle, Daulac, Madeleine de Vercheres, Wolfe, Montcalm, Pontiac, Vancouver, Fraser, Selkirk, The Hudson Bay Company, Brock, Tecumseh, Laura Secord, Simcoe, The United Empire Loyalists, William Lyon Mackenzie, Durham, Ryerson, George Brown, Howe, John A. Macdonald, Alexander Mackenzie, Canadian Pacific Railway, Strathcona, Laurier.

Grade VI. or Senior III.

The following is a suggestive list in British History :—The British Isles, Julius Caesar, Caractacus, The Anglo Saxons, Augustine, Alfred the Great, William the Conqueror, à Becket, Richard the Lion-Hearted, Langton, Simon De Montfort, Robert Bruce, The Black Prince, Chaucer, Wyclif, Wat Taylor, Joan of Arc, Caxton, Warwick, Cardinal Wolsey, Cranmer, Elizabeth, Knox, Raleigh, Drake, Armada, Shakespeare, Hampden, Oliver Cromwell, The Puritans, William III, Marlborough, Bonnie Prince Charlie, Wesley, Wm. Pitt, Clive, Washington, Nelson, Wellington, Scott, Wilberforce, Victoria, Havelock, Gladstone, Chinese Gordon, Tennyson, Roberts, Edward VII.

General Suggestions for Grades VII. and VIII.

History is based on facts, not mere isolated facts, but facts in their proper relation of time, place and accompanying conditions, hence the suggestion that the history be developed in conjunction with its surroundings at each stage so as to give the pupils some definite knowledge of the conditions under which the events took place: e. g. in Canadian History, in the Indian and Discovery periods there is comparatively little to teach. The principal points are, in the former, the nature of the country and a description of the native Indian; his chief occupations, fishing and hunting and the tribal wars; in the latter a description of the discoverers as to nationality and religion, their

bravery, their purpose in coming, and the trade they carried on with the Indians. The following periods, however, witnessing as they did growth and development, furnish material for more extended lessons under all the topics named. The industrial progress, the development of trade, the struggle for self-government, the system of free education, the inflowing tide of immigration, the constantly enlarging territory with its ultimate union under confederation, the enactment of laws dealing justly with peoples of different nationalities and religions, the necessity of maintaining friendly relations with the great nation to the south of us and at the same time ever strengthening the bond of connection with the Mother Land, give ample scope to make the teaching of Canadian history not only interesting but of real value.

A similar treatment of British history, under topical heads during well defined historical periods, will give like satisfactory results, for, history is the record of a nation's life.

In the seventh and eighth grades the work is outlined in monthly instalments, beginning the academic year in September. If the promotions are made at a different time a corresponding change must be made.

Grade VII. or Junior IV.

Canadian History.

September :—In presenting the general outline of the whole of Canadian History in the first month, the proportion of time covered by each of the subdivisions named should be taught by diagram and the historical characters taken up in a previous grade should be reviewed and placed in their chronological divisions. Also in teaching this outline dwell upon the causes that led to the change indicated by each successive subdivision outlined with consequent results on the condition of the people.

Subdivisions or Periods.

- I. Indian (including Mound-Builders).
- II. Discovery.
- III. French.
- IV. British.
 - (1) Military Rule, 1759-63.
 - (2) Growth of Constitution, 1763-74-91.
 - (3) Parliamentary Government, 1791-1841.
 - (4) Responsible Government, 1841-67.
 - (5) Confederation, 1867—

October :—Show that the prosperity and growth of a new country depend on the following :—

- (a) Character of Country and Settler and rate of increase in immigration.
- (b) Occupation of the people and Industrial Progress.
- (c) Trade and Commerce.
- (d) Educational facilities and Religious Freedom.

(e) Form of Government and Administration of Justice with extent of territory affected.

(f) Relation to the Mother Land and to the adjacent nations. And develop these topics as they apply to subdivisions I. and II. of outline for September.

November :—Develop the topics of the October outline as they apply to subdivision III. of September outline.

December :—Develop the topics of the October outline as they apply to subdivision IV. in September outline down to the year 1812.

January :—Develop the topics of the October outline as they apply to subdivision IV. in September outline for years 1812-1841.

February :—Develop the topics of the October outline as they apply to section (4) of subdivision IV.

March :—Develop the topics of the October outline as they apply to section (5) of subdivision IV.

April :—Civics—Review topic (e) of October outline and give careful attention to the form of our Federal Government ; the composition and powers of the Senate, House of Commons and the Cabinet ; the duties of the Governor-General and the Premier ; the parliamentary terms in common use as adjourn, prorogue and dissolve parliament. The same as applied to the Government of Ontario. Specify the respective jurisdiction of the Federal and the Provincial Government.

May :—Civics—Review topic (e) of October outline and give careful attention to Municipal Government ; the composition and powers of county, township, city, town and village councils ; Board of Education and Public School Trustees ; the method of electing them ; the titles of their presiding officers and the manner of their selection.

June :—Teach more fully topic (e) of October outline as regards the Administration of Justice under the following heads :—Names of the various courts ; appointment of judges and their tenure of office ; appointment of sheriffs, magistrates and police.

Present any one topic more fully in order to inspire the pupils to more extended historical reading.

General Review.

Grade VIII. or Senior IV.

British History.

September :—General outline, including origin of English language, leading to the following subdivisions.

(a) Early Britons.

(b) Romans.

(c) English.

(d) Danish.

(e) Norman.

(f) Plantagenets.

(g) Lancastrians.

(h) Yorkists.

- (i) Tudors.
- (j) Stuarts.
- (k) Hanoverians.

In presenting this general outline of the whole of British History in the first month, the proportion of time covered by each of these subdivisions should be taught by diagram and the historical characters taught in the previous grades reviewed and placed in their chronological divisions. Also in teaching this outline the causes that led to each successive change in ruling power with consequent results on the condition of the people should be emphasized.

October :—Show that the Social condition of the people results from :—

1. The form of Government, including administration of justice, showing the gradual supremacy of the people as reached in the present form of Responsible Government.
2. The development of Religion and the relation of Church to State.
3. The development of Education and growth of Literature.
4. Natural Resources and Industrial growth.
5. Commercial Development leading to Commercial Supremacy. and develop these topics as they apply to the Early Briton, Roman, English and Danish periods.

November :—Develop the topics of the October outline as they apply to the Norman, Plantagenet, Lancastrian and Yorkist periods.

December :—Develop the topics of the October outline as they apply to the Tudor period.

January :—Develop the topics of the October outline as they apply to the Stuart period.

February :—Develop topics 1 and 2 of the October outline as they apply to the Hanoverian period.

Give special attention to the great reforms of this period.

March :—Develop topics 3, 4 and 5 of the October outline as they apply to the Hanoverian period.

Give special attention to the great inventions of this period, particularly those connected with steam and electricity.

April :—Teach England's Home, Colonial and Foreign policy and the growth of Greater Britain.

Teach the Great Wars of the Hanoverian period emphasizing especially the Napoleonic Struggle and the Crimean War.

May :—Civics—Review especially the growth and development of Responsible National Government, Municipal Government and the British Constitution ; the composition and powers of the House of Lords and House of Commons ; the continuity of Sovereign rule and the relation of the various parts of the Empire to the Home Government and to one another.

June :—Review the whole course giving special attention to the events of the 19th Century. Train the pupils especially how to carry on historical research by reference to various books and documents and how to generalize and systematize the knowledge obtained.

GEOGRAPHY.

General Suggestions

The starting point in Geography must be the surroundings of the child. From this source must be drawn the ideas which the pupil must apply to the larger world outside, in order to get a conception of the world as the home of man and a knowledge of the causes which modify conditions in various parts of the world. Nearly all the topics dealt with lend themselves to the method of class discussion in which the pupil may be led to extend what he has already observed and understands about his own surroundings, to the unknown and hitherto unthought of subject under discussion. The teacher's questions should direct the pupil's observation, exercise his judgment, or stimulate his reasoning powers. The topics that may arise for discussion are as many and varied as man's activities and nature's moods and modes. They are almost unlimited and they afford the very best opportunity possible to exercise and develop the reasoning powers of the pupil. Memory must be exercised at all times, but it is largely the memory resulting from properly associated ideas, the unknown associated with the related known, and very seldom the memory necessitated by mechanical repetition. Treated in this way reason relieves the memory, the subject becomes interesting and the pupil comes to realize that he may have ideas and reach conclusions that are reliable in proportion to the accuracy of his original observations and of his reasoning.

The Map of the World, showing the British Empire, should hang on the wall of every class room.

Grade I. or Junior I.

Familiar talks on local surroundings correlating with the course in Language, Composition and Nature Study.

Grade II. or Senior I.

- Assignment :**
- I. Local Land and Water Forms.
 - II. Maps.
 - III. Directions, Time, Atmosphere.
 - IV. Industrial Life.
 - V. Child Life.

I. Local Land and Water Forms :

Observing of hill, valley, stream and pond and applying the ideas obtained to mountain, ravine, river, lake and any other forms mentioned in their reading books. Representation of these by means of a sand table.

II. Maps :

Drawing of maps (diagrams) of school room, playground, home grounds, roads, streets and locality.

III. (1) Directions, etc.

Right and left ; the cardinal points ; the semi-cardinal points ; directions of principal streets and roads ; location of observed objects, places and public buildings ; direction of local streams, of winds, of bird flight, of cloud movements, weather vane.

(2) Time.

Divisions of the day ; day and night ; sunrise and sunset ; morning, noon, evening ; forenoon and afternoon ; midday and midnight ; time divisions of clock-dial and reading time of day. Divisions of the year ; days, weeks, months, seasons.

(3) Atmosphere.

Observation of clouds, fog, mist, rain, hail, snow, dew and frost, leading to simple ideas of their causes. Records in simple weather calendars.

IV. Industrial Life of the Community.

- (1) Employments : Activities of the home and vicinity ; e.g. farms, shops, stores, factories, mines.
- (2) Products : of the farms, shops and factories.
- (3) Markets : observation of what is sold by farmers and farmers' wives, and of goods bought for the home. Sources of food-supply and clothing.
- (4) Transportation : wagon roads, railroads, waterways ; their benefit to all ; what is done with farm and factory products not used locally.

V. Child Life.

Stories with illustrations of child life in tropical and arctic regions.

Grade III. or Junior II.

Assignment : I. Land and Water Forms.

II. Maps and Globes—Map of World only.

III. Political Geography—Countries, Map of World.

IV. Historical and Current.

I. Land and water forms.

- (1) Work of Grades I. and II., continued and ideas obtained from observation of local surroundings extended to mountain, peak, slope, base, range, pass, valley, glen, gorge, canyon, gulch, divide or watershed, plateau or tableland, cliff, promontory.
- (2) Study of a local stream as to origin, direction, size, work of draining, eroding and carrying, developing the application of the terms river, creek, brook, rill or rivulet, branch,

tributary or affluent ; spring, source, bed, bank, basin, channel, rapids, cataract, falls, whirlpool, mouth, bars, delta, estuary.

- (3) Study of some local body of water, or of the coast features of North America to show the meaning of the terms isthmus, strait, channel, gulf, bay, sea, sound, peninsula, cape, canal, lake, island.
- (4) Representation of the above features of land and water by drawing or modelling in sand or clay.

II. Maps and Globe.

- (1) A study of the Globe as representing the world, to develop ideas of the earth's form, size, relation to the sun, source of heat and light, rotation and the cause of day and night. Locate and name continents and oceans.
- (2) A study of the way in which the map of the world is derived from the globe, its hemispheres, the position of the cardinal points, the oceans and continents.

III. Political Geography. (Use map of World only.)

- (1) Location, on map, of the continent and country in which we live ; the Canadian Flag ; the Union Jack ; the British Empire and the location of the chief countries (British Isles, Canada, Australia, India, New Zealand, South Africa) composing it ; the King and his representative in Canada.
- (2) The nationalities of the people of the locality and the location on the map of the countries from which they came.
- (3) Discussion of journeys taken by local (or imaginary) persons leading to a knowledge of location of the chief countries of North America and Europe, the countries and waters crossed, and the land and water forms met with on these trips, e.g., isthmus, strait, channel, island, peninsula, cape, gulf, bay, sea, sound, canal, lake.

IV. Historical and Current.

The location of places mentioned in connection with the work in history and the important world events as reported in the home newspapers.

Grade IV. or Senior II.

- Assignment :**
- I. Political Geography.
 - II. Commercial Geography.
 - III. Physical Geography.
 - IV. Historical and Current.

I. Political :

- (1) The continent, country, province, county, township, and school section or village, town or city in which we live ; the provinces of Canada, confederation into union forming Dominion in 1867, Dominion Day.
- (2) A knowledge of the location of the principal countries of the world through a consideration of things found in the home and used for food, furnishings, or wear, e.g., raisins, currants, dates, figs, olives, oranges, lemons, prunes, bananas, nuts, tea, coffee, cocoa, chocolate, rice, tapioca, sago, salt, spices, pepper, tobacco, sugar, syrup, bread, meat, fish, oysters, vegetables, carpets, rugs, curtains, furniture, dishes, cutlery, silverware, glassware, woodenware, ivory, rubber, clocks, watches, jewellery, coal, coal oil, cotton, linen, silk, wool, boots, furs, diamonds, pearls.

II. Commercial.

Local Commerce : (1) Articles of manufacture or exchange in local factories, shops, stores and markets ; (2) Part played by local collecting and distributing centres such as implement and wholesale houses ; (3) Means of transportation : roads, railroads, waterways ; (4) Meaning of exports and imports.

III. Physical : (General notions only)

- (1) Winds ; cause, direction and force.
- (2) Nature and cause of clouds, rain, hail, snow, fog, mist, dew, frost.
- (3) Conditions affecting climate.
- (4) Systematic weather records.
- (5) Observation and record of moon's phases.
- (6) Observation and record of the changes in the position of The Great Bear in its relation to the North Star.

IV. Historical and Current :

Location of places of historical interest in the neighborhood, of places mentioned in history lessons of the grade, and of places connected with current important world events as reported in the home paper.

Supplementary Reading :

Seven Little Sisters, Andrews ; Ginn & Co., Boston. Pictorial Geographical Readers, I-III ; Longmans, Green & Co., Boston.

Grade V. or Junior. III.

- Assignment :**
- I. North America.
 - II. South America.
 - III. Ontario.
 - IV. West India Islands.
 - V. Historical and Current.

I. North America.

Physical : (1) Location, boundaries, coast line, coast waters.

- (2) Relief, water partings and contour determined by the Rocky, Alleghany and Laurentian Systems.
- (3) Slopes : Atlantic, Pacific, Northern and Southern, with important rivers in each.
- (4) Basins : The Great Lakes and St. Lawrence ; Mississippi, Hudson Bay, Mackenzie and Yukon, with the important lakes and rivers of each.
- (5) Ocean Currents : Gulf Stream, Japan and Polar.
- (6) Climate : as determined by zones, latitude, elevations, slopes, mountain ranges, prevailing winds, ocean currents, bodies of water.
- (7) Rainfall, rainless regions and irrigated districts.
- (8) Special conditions which determine and affect various industries, such as agriculture, grazing, lumbering mining, manufacturing, hunting and fishing.

Commercial : (1) Production maps of North America, made by pupils, showing regions where the following are produced in quantity for the market : wheat, corn, rice, principal fruits, tobacco, cotton, wool, beef, fish, lumber, oil, coal, iron, gold, silver, copper, nickel.

- (2) From memory draw map showing the divides, basins, rivers and countries and locate the following commercial centres : Quebec, Montreal, Toronto, Buffalo, Sault Ste. Marie, Fort William, Duluth, Winnipeg, Victoria, Prince Rupert, Halifax, St. John, Boston, New York, Washington, New Orleans, St. Louis, Chicago, Pittsburg, San Francisco, Seattle. Emphasize the factors that determine the location of the above, e.g., cheap raw material or mineral wealth, cheap power for manufacturing, cheap transportation, natural advantages for distribution of commercial products.
- (3) Methods of distribution and transportation : steamships, railways, elevators. Routes : The St. Lawrence and Great Lakes with Canals, Erie Canal and Hudson River, Mississippi River ; transcontinental railways, e.g., Grand Trunk Pacific, Canadian Pacific, Panama Railway and Canal.

II. South America.

- (1) A brief treatment of mountain ranges, divides, slopes, basins, and climate.
- (2) Countries, peoples, occupations, commercial centres, products exchanged with Canada.

III. Ontario.

The divides, slopes, basins, rivers, surroundings; special conditions of soil, climate, and natural resources that affect the various industries, as agriculture, fruit-growing, lumbering, mining, manufacturing, fishing and hunting; location of new settlements and the relation of their growth to soil, climate, raw material, mineral wealth, cheap power, cost of transportation of raw material and manufactures; undeveloped agricultural and timbered districts with the causes; undeveloped water power and the possibilities for producing cheap manufactures and transportation; products, production maps showing districts where the following are produced: oil, gas, salt, fruits, grains, tobacco, nickel, silver, copper, iron, gold, lumber, pulpwood; chief commercial centres; important railways and canals; counties and county towns.

IV. West India Islands.

The larger islands and important groups; their physical relation to North and South America; their people, occupations and trade with Canada.

V. Historical and Current.

Location of places mentioned in the history course of this grade, and of places connected with current events.

Supplementary Reading.

Complete Geography—*Morang*.

Grade VI. or Senior III.

Assignment: I. Physical Geography.

II. The British Empire with a more particular study of the Dominion of Canada.

III. Historical and Current.

I. Physical Geography.

- (1) Agencies that modify the land surface: rain, frost, heat, wind, weathering, ice, rivers, earthquakes, volcanoes, waves, man.

- (2) Winds : causes, directions, uses, land and water breezes, whirlwinds, cyclones.
- (3) Rainfall : measurement ; general effect of prevailing winds and interference of mountain ranges ; regions of great rainfall and their characteristics ; rainless regions and their characteristics ; deserts, oases, and their causes.

II. The British Empire.

- (1) *Canada* : Study of Dominion as a whole and in provinces. Draw from memory the map of the Dominion showing divides, basins, rivers, coast-waters and provinces ; and mark the capitals, chief commercial centres and the important transportation routes by water and railway.
- (2) *Australia*, New Zealand, India, South Africa, British Isles—treated briefly as to political divisions, climate, peoples, occupations and products exchanged with Canada and the Motherland ; commercial routes between these countries and Canada.

Provinces : Location and surroundings of each, special conditions of soil, climate and natural resources that determine or affect their various industries, as agriculture, grazing, lumbering, mining, manufacturing, fishing, hunting ; location of new settlements, and the relation of their growth to soil, climate, raw material, mineral wealth, labor supply, cheap power, cost of transportation of raw material and manufactured products ; undeveloped agricultural and timbered districts with reasons ; undeveloped water powers and the possibilities for producing cheap electricity, cheap manufacturing and transportation ; products ; production maps of Canada made by the pupils showing where the following are produced in large quantities for the home and foreign markets : wheat, beef, tobacco, sugar, salt, coal, coal oil, gas, fruit, lumber, pulpwood, metals.

- (3) *Roll Call of British Empire* : Location on the map of all its component parts.

III. Historical and Current

As for previous grades.

Supplementary Reading

Round the Empire, Parkin ; Copp Clark Co.
Industrial and Social Life of the Empire, Strachey ; The Macmillan Co.

Grade VII. or Junior IV.

- Assignment :** I. Astronomical Geography.
 II. Europe and Asia.
 III. Historical and Current.

I. Astronomical Geography

- (1) The Earth in space ; proofs of its shape ; its relation to the sun ; its revolution around the sun, its orbit and ecliptic, the year and the seasons ; its rotation on its axis and the effects ; the inclination of its axis ; the Pole or North Star ; inequalities in the length of day and night ; equinoxes, and solstices ; sun time and standard time ; the midnight sun, lines and zones on the globe and map ; polar circles, equator, meridian, latitude, longitude, great and small circles, tropics, heat belts, light belts. Relation of the earth, moon and sun ; causes of the phases of the moon ; eclipse of the moon and the sun.

II. Europe and Asia

- (1) Physiography of Eurasia, compared to North America as to relief, drainage, climate and prevailing winds (a careful study of the physical map should precede the study of the political map) ; approximate conceptions of the size of these continents, the heights of their table-lands and mountains ; comparison with North America as to latitude and longitude.
- (2) A study of the countries under topics similar to those suggested in Grade V. in the study of America, giving special attention to the British Isles, France, Germany, Holland, Russia, India, Japan and China.

III. Historical and Current

As in previous grades.

Supplementary Reading

Asia, Carpenter : American Book Co., New York.
 Europe, " " " " " "
 Europe, Pictorial Geographical Readers, Longmans, Greene & Co.,
 Asia, " " " " " "

Grade VIII. or Senior IV.

- Assignment :** I. Physical Geography.
 II. Astronomical Geography.
 III. World Geography.
 IV. The Geography of the Ancient World.
 V. Historical and Current.

I. Physical Geography

- (1) Trade Winds and Anti-Trade Winds, their location, direction and cause ; belt of calms ; cause and effects of monsoons ; cyclonic storms, their origin, direction and movements as shown by weather maps ; weather predictions.
- (2) Ocean Currents, their cause, direction and effects ; the effect of the prevailing winds blowing over these to the land.
- (3) The Nebular Hypothesis as a possible explanation of the formation of the world with its continental ridges, continents, ocean beds, volcanoes and volcanic islands.
- (4) The causes of saltiness of oceans and some lakes.
- (5) Fossils and the story they tell.
- (6) Glaciers, avalanches, moraines and icebergs.
- (7) Islands, continental and oceanic.

II. Astronomical Geography

The Earth as a planet ; other planets, their location and revolution around the Sun ; our solar system ; stars ; other solar systems ; distinction between a planet and a star ; morning and evening stars ; comets and meteors ; observation of some of the more prominent constellations such as, the Dipper, Orion and Cassiopeia.

III. World Geography

- (1) The Continents and Islands. A study of the leading countries and their colonies or dependencies with reference to their physical features, climatic conditions, political divisions, people, products and commercial relations, more particular attention being given to the British Empire, emphasizing the causes of its commercial supremacy.
- (2) Africa : Relief, drainage, climate, rainless regions, prevailing winds, irrigation ; a general idea of its partition among European nations ; the analogy in this respect between Africa to-day and America about two hundred years ago.
- (3) Leading forms of Government, races of people, and religions of the world.

IV. The Geography of the Ancient World

- (1) The location of the Ancient Mesopotamia, Babylonia, Chaldea, Medea, Phoenecia, Carthage, the ancient Empires of Assyria, Persia, Macedonia and Rome, with the approximate date of their greatness.

- (2) Palestine. The location of Palestine with reference to Egypt, Greece and Italy ; the Jordan valley including the Sea of Galilee and Dead Sea ; political divisions at the time of Christ, Judea, Samaria, Galilee ; historical places e.g. Jerusalem, Bethlehem, Nazareth, Samaria, Jericho, Joppa ; cities connected historically with Palestine, e.g. Tyre, Sidon, Babylon, Ninevah, Damascus, Athens, Corinth, Ephesus, Rome.

V. Historical and Current

As in previous grades.

Supplementary Reading

Storyland of Stars, Pratt ; Educational Publishing Co.,
Carpenter's Geographical Readers ; American Book Co., New York.

ARITHMETIC.

General Suggestions.

On account of the Committee not being able to agree on either method or amount of work in the early grades it was decided to submit duplicates courses in the first four grades called respectively Course A and Course B for consideration.

Grade I. or Junoir I. (Course A.)

Teach the numbers 1 to 9 inclusive : teach objectively, using sticks, pegs, apples, dots, etc., the facts of the above numbers developing concretely the number idea.

Teach Numeration and Notation to hundreds : teach numeration and notation of units, tens and hundreds with special emphasis on their position and consequent relationship to one another. Teach objectively and drill thoroughly.

Teach Combinations—Tens, Doubles, Nines and Eights : teach each combination objectively and follow this with the tens belonging to it so as to be able to take column addition from the beginning : thus $5+5$, then $15+5$, $25+5$ to $95+5$. The combinations may be taken in families as indicated above, thus the Ten family : $5+5$, $9+1$, $8+2$, $7+3$, $6+4$; Twins or Doubles : $1+1$, $2+2$, etc., to $9+9$; Nines : $1+8$, $2+7$, $3+6$, $4+5$; Eights : $1+7$, $2+6$, $3+5$ and ($4+4$ and $9+9$ already taken as Twins).

Note.—The family of Eights consists of those pair of digits whose sum is eight or whose sum ending is eight.

Single column addition in the combinations taught : Drill thoroughly in combinations, tens and columns so that by getting away from the concrete the addition becomes automatic not by mere mechanical drill but by repetition of process.

Oral Problems.

Give much practice on small suitable oral problems, the answers to be either oral or written. Give much practice, not only in solving problems, but also in problem forming and in interpreting problems.

Grade I. or Junior I. (Course B.)

Facts of the numbers 1 to 9 inclusive : teach objectively as in course A : numeration and notation as in course A : combinations, both addition and subtraction, to 20 : drill thoroughly on these combinations.

Column addition : single column addition in which the sum does not exceed 20 : add by increments of 1, 2, 3, etc., and also by using all the combination : oral problems as in course A.

Grade II. or Senior I. (Course A.)

Review work of previous grade.

Numeration and Notation

Teach and drill as in previous grade numeration and notation to thousands.

Combinations in Addition

Teach and drill as in previous grade the remainder of the combinations, taking the families Sevens, Sixes, Fives, Fours, Threes, Twos and Ones.

Addition

Teach and drill addition in questions up to five columns, using all the combinations.

Concrete Units

Teach objectively one-half, one-quarter, cent, five-cent, ten-cent, twenty-five-cent, dollar, pint, quart and gallon.

Problems

Use all the units taught in suitable oral and written problems, and give practice as in Grade I.

Grade II. or Senior I. (Course B.)

Review work of previous grade.

Numeration and notation as in course A.

Combinations

Review each combination and follow this with the tens belonging to it, thus, $6+7$, $16+7$, etc., to $96+7$.

Column Addition

Add by increments of 1, 2, 3, etc., to 100, thus, 4, 8, 12, 16 etc. : teach and drill addition in questions up to five columns.

Subtraction

Review subtraction combinations to 20, and teach subtraction. Concrete units as in course A.

Problems

As in course A.

Grade III. or Junior II. (Course A.)

Review and extend work of previous grades.

Numeration and Notation

Teach millions. Teach subtraction.

Multiplication

Teach tables for and multiplication by 2, 3 and 4, also multiplication by two figures composed of 0, 1, 2, 3 and 4.

Division

Teach division by 2, 3 and 4, and apply division by 2 to the teaching of odd and even numbers.

NOTE.—Teach subtraction, multiplication and division objectively ; emphasize the relationship of the positions of the figures especially in reduction ; and give plenty of practice for accuracy and rapidity in the mechanical work.

Concrete Units

One-third, ounce, pound, time by the clock, days of the week and months and seasons of the year. Teach the above objectively, and use these and previous units in the formal statement both orally and in writing, as well as in the working of suitable problems.

Problems

Practice problems as in Grade I. Mental arithmetic daily.

Grade III. or Junior II. (Course B.)

Review and extend work of previous grades.

Numeration and notation to millions

Multiplication

Review addition by increments and teach multiplication by one, two and three figures.

Division

Teach objectively $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and from this develop division by a single figure.

NOTE.—Teach multiplication and division objectively, and give plenty of practice for accuracy and rapidity in the mechanical work.

Roman notation to C

Concrete Units

Teach objectively ounce and pound.

Problems

Easy oral problems about things with which the pupils are familiar, and involving not more than two steps. Drill in reading problems and stating solutions. Drill daily in mental arithmetic.

Grade IV. or Senior II. (Course A.)

Review and extend work of previous grades.

Aim at securing accuracy with a fair degree of speed.

Multiplication and Division

Teach tables and multiplication and division to 9 inclusive. Use multipliers of not more than three figures and divisors of not more than one figure.

Factoring

Teach easy factoring, division by two factors and finding the true remainder.

Notation

Teach Roman notation to 1,000 inclusive.

Concrete Units

Teach halves, thirds, fourths, fifths, sixths, sevenths, eights, ninths, mile, square inch, square foot, square yard, cubic inch, cubic foot, second, minute, hour, week, month (number of days in each month), year, century, and use these and all previous units in both oral and written problems having not more than two steps in their solution. Emphasize clear logical statements in all solution of problems and accuracy and speed in mechanical work.

Perimeter of Rectangular Figures

Teach by actual measurements and follow with oral and written problems.

Grade IV. or Senior II. (Course B.)

Review work of previous grades with the aim of securing accuracy and speed.

Division

Teach long division by divisors of one, two and three figures.

Factoring

Teach easy factoring, division by two factors, and finding the true remainder.

Notation as Course A**Concrete Units**

Teach objectively fractions to eights and find such parts of quantities, also inch, foot, yard, second, minute and hour, and use these in oral and written problems of not more than two steps.

Problems

Easy problems about things with which the pupils are familiar. Oral problems daily, insisting on clear statements of the solution. Drill in reading problems and stating solutions. Perimeter of rectangular figures as in course A, and use these in oral and written problems of not more than two steps.

Grade V.

NOTE.—In this and the following grades, the work is outlined in monthly instalments beginning the academic year in September. If the promotions are made at a different time a corresponding change must be made.

Grade V. or Junior III.

September :—Review work of previous grades for Accuracy and Rapidity of mechanical work and clear logical statements in problems. Complete Multiplication and teach Long Division by divisors of one, two or three figures.

October :—Complete Long Division—Addition of Ledger Columns Factoring—Prime and Composite Numbers—Prime Factors—Division by two factors and finding true remainder with reason therefor. Cancellation. Problems involving all units taken.

November :—Measures and Multiples. Highest Common Factor and Least Common Multiple developed from Prime Factors. Complete Arabic and Roman Notation. Simple Bills and Accounts. Problems.

December :—Teach shorter form of finding Highest Common Factor and Least Common Multiple with reasons for the methods. Aggregates and Averages, teach the Proper Fraction and its terms, also Notation and Numeration of Fractions, Improper Fractions and Mixed Numbers and the changing of each of them to the form of the other. Problems.

January :—Teach the Reduction of Proper and Improper Fractions and Mixed Numbers followed by their Addition and Subtraction. Teach Addition and Subtraction of Fractions. Problems.

February :—Reduction—Teach the Tables and two step questions for Money, Time and Length. Problems.

March :—Reduction—Teach the Tables and two step questions for Volume (not including Cubic measure) and Weight. Problems involving all previous work.

April :—Reduction—Table and two step questions for Surface Measure, Areas of Rectangular surfaces developed from the unit. Problems.

May :—Complete Reduction—Tables and two step questions.

June :—Review all phases of the work giving special attention to accuracy and neatness of statement, form and result.

Grade VI. or Senior III.

September :—Review the Simple Rules giving special attention to the reasons for the way in which the operations are performed, also to secure accuracy and rapidity. Multiply and Divide by 25, 75, 125, and 10, 100, etc., by short methods. Teach the stating of the steps of problems in logical order.

October :—Review and complete the work in connection with the tables of Money, Time and Length. Have suitable problems logically stated.

November :—Review, extend and complete the work in connection with the tables of Weight and Volume (cubic measure omitted). Bills and Receipts. Problems.

December :—Review, extend and complete the work in connection with Surface Measure. Problems relating to surfaces.

January :—Cubic Measure as above. Volumes of Cubes and Rectangular Prisms developed from the unit.

February :—Review and complete the work in connection with the Compound numbers. Simple Sharing. Problems oral and written.

March :—Review and extend the work in Addition and Subtraction of Fractions and Mixed Numbers and problems relating thereto.

April :—Multiplication and Division of Simple Fractions and Mixed Numbers and Problems involving this and previous work.

May :—Simplifying Compound and Complex Fractions and Problems involving this work.

June :—Review and relate all phases of the work and secure logical order, neatness and accuracy.

Grade VII. or Junior IV.

September :—Review and extend the application of the Simple Rules giving attention to theory, accuracy and rapidity—Bills—Measures and Multiples—Fractions—Problems involving this work.

October :—Review and extend the application of the work in connection with the Compound Numbers completing all except Surface and Cubic Measures including problems relating to this and the previous work.

November :—Review and extend the application of the work relating to Surface and Cubic Measure as applied to rectangular Surfaces and Solids including land measure, walks, paving, grading, excavating, having pupils report problems from actual measurements.

December :—Continue the work of the previous months and also extend the application of Averages and Sharing.

January :—Decimals :—notation and uumeration, reduction, ddition, subtraction, multiplication and division.

February :—Changing Decimals to Vulgar Fractions and vice versa, Percentage—Expressing Percent as either a Vulgar Fraction or a Decimal and vice versa and its application to Profit and Loss. Problems relating to this and previous work.

March :—Review the work of previous months. Teach Simple Interest with direct Problems.

April :—Review. Teach Commission and Brokerage. Problems.

May :—Bills and Accounts with partial Payments thereon. Insurance. Problems.

June :—Review the entire work of the Grade strengthening any weak points and showing the proper relation between the parts and demanding accuracy, neatness, rapidity and logical statements and arrangements.

Grade VIII. or Senior IV.

September :—Review and extend the application of—Notation and the Simple Rules with special stress on Theory—Problems. Teach Involution and the extraction of Square Root.

October :—Review as above the rules relating to the Compound Numbers with Problems involving this and previous work. Teach Area of Right-Angled Triangle and Circle.

November :—Review as above Factoring, Measures and Multiples, Averages and Sharing. Practical Problems in Area as Carpeting, Plastering and Painting, giving Mathematical and Practical solutions.

December :—Review as above—Vulgar Fractions. Teach volume of Cube, Rectangular Prism and Cylinder.

January :—Review as above—Decimals. Practical Problems in Volume of which a type is : Find the number of bricks for a wall.

February :—Review as above—Percentage, Profit and Loss, Commission and Brokerage, Simple Interest, Accounts with Partial Payment and Insurance. Problems.

March :—Review. Teach Ratio and Proportion and Aliquot Parts. Problems.

April :—Review. Teach Taxes, Duties and easy direct questions in Partnership. Problems.

May :—Trade Discounts (not more than three) and easy direct questions in Compound Interest. Teach Metric System.

June :—Review and relate the entire work.

WRITING

General Suggestions

Every teacher should secure a good Manual on Penmanship and carefully study the essentials of good writing. If the teacher be not a good writer he should obtain a supply of good materials and practise at least half an hour daily, closely following the directions given in the Manual. Continue the study and the practice till the subject is fairly well mastered. In teaching writing the greatest difficulty is to get the pupil to hold the pen properly and to assume a proper position. Once these are secured the way is clear and careful, persistent practice will do the rest.

Position

1. Position of body—The front edge of the seat should be directly below the edge of the desk. The pupil should sit well back on the seat, the body leaning slightly forward close to the desk, but not leaning against it. The feet should be placed flat on the floor in front of seat and the arms should rest easily on the desk. The points of the elbows of both arms should be just off the edge of the desk. The pupil should not lean the weight of his body on the arms, but the full weight of the arms should rest on the desk. It takes time, constant effort and thought to form the habit of sitting in a correct position, therefore continue to give the foregoing directions careful attention, until the habit of assuming a good easy writing position is established.

2. Position of paper—The paper should be placed so that the edge of the paper is parallel to the forearm. If this relative position of paper and forearm be maintained the slant of the writing will be right and further directions regarding slant need not be given.

3. Position of arms—Place the right arm so that it rests on the muscular cushion of the underside of the forearm. The left arm should be placed in the same relative position as the right, and the left hand used to hold the paper.

4. Penholding—The pen is held between the end of the thumb and the second finger at a place between the first joint and the root of the nail, and the first finger is placed on top of the penholder about an inch from the point of the pen. The penholder should cross the hand near the knuckle-joint of the first finger. The penholder should point towards the right arm between the elbow and the shoulder. When held properly it will form an angle of about forty-five degrees with the paper. The third and fourth fingers are turned under the hand, and the hand is turned just enough to let it glide on the tips of the nails of these two fingers. Be sure that no part of the hand except these fingers touches the desk. (*Carefully examine the cuts in the Manual.*)

Cautions

(1) The penholder must not be gripped tightly. (2) Correct position of body, arms and paper and correct penholding should be required

not only during the writing lesson but in all written work. (3) Use only good pens, ink and paper. (4) There should be a writing lesson daily of at least twenty minutes under the direct supervision of the teacher. The first part of the lesson should be devoted to teaching from the blackboard. The pupils should frequently be required to use the blackboard for exercises and writing.

Motions in Practice (*Consult Manual*)

There are four motions : (1) Right and left. From left to right and return, making horizontal straight lines. (2) Left oval. This is made in the direction that the letter O is formed. It is used in making letters, as o, a. (3) Right oval. This is made in the direction that the letter P is formed. It is used in making letters, as P, B. (4) Up and down straight lines. This motion is made by a forward and return movement of the arm. If copy books be used the muscular movement exercises must nevertheless be kept up.

Grades I. and II. or Junior I and Senior I.

Aim to acquire ease of movement and lightness of stroke. Special attention to proper position of the body, pencil or pen, and paper.

Exercises—At the desk and at the blackboard

(1) Left and right ovals. (2) Right and left straight lines. (3) Up and down straight lines.

Writing letters and words as taught in the reading lessons. Figures, exercises, and writing should be of large size.

Pupils should use the blackboard frequently.

Grade III. or Junior II.

Aim—To acquire ease and control of movement, lightness of stroke and form of letter. Attention to position and penholding. Exercises at desk and at blackboard. Developing letters from left oval, e.g., O, A, C ; o, a, e, c. From right oval, e.g., B, P, R, m, n, v. Writing words, sentences and figures. Exercises and writing should be of medium size.

Grade IV. or Senior II.

Aim—As in Grade III. with greater attention to neatness and form of letters. Special attention to spacing and joining of letters. Exercises. The four movements. Developing all the small and capital letters from the movements. Work at seat and at blackboard. Writing words and sentences with careful attention to neatness.

Teach pupils to be self critical.

Grade V. or Junior III.

Aim—As in Grade IV. but greater neatness and accuracy of form, spacing and joining of letters should be expected than in previous grades. Development of all letters from movements. Work, at seat and at blackboard. Writing figures and sentences with special attention to neatness. Pupils should learn self criticism.

Grade VI. or Senior III.

Aim—Greater neatness and speed than in the previous grades. Special attention to neatness of the written page. Writing sentences and short paragraphs. Self criticism.

Grade VII. or Junior IV.

Aim—Neatness and speed. More complicated exercises. Development of all the letters from movements. Special attention to legibility and beauty of form. Writing of bills and accounts for greater variety of practice. Exercises and development of letters on blackboard. Self criticism.

Grade VIII. or Senior IV.

Aim—Legibility, beauty and speed. Difficult movement exercises. Correction of any errors in the formation of letters, that may still survive. Writing of business forms and short letters for variety of practice. Careful self criticism. Exercises on backboard continued.

ART

General Suggestions

The work is arranged under heads. It is not intended that one division of the subject be completed before another is begun; but that all be correlated as far as possible and each receive its due share of attention. The choice of subjects under each head must depend on the season and the material available in the locality. A variety of subjects (such as suggested in the course) is more conducive to the development of power than constant drill on one or two.

The course appears, at first sight, much more extensive than it really is. With proper correlation, one lesson may cover work under several heads, for example, the painting of a simple spray from nature includes color, representation and composition. Composition, as it deals with good selection and arrangement, should be incidental to all exercises.

It is not to be supposed that this work can be carried on in its entirety until all grades have had some experience. Teachers should adapt the work to the present condition of their pupils, dropping back a grade or even two if necessary ; but with the understanding that in the near future the work of each grade will have reached the standard required in the course.

Teachers should read the work of previous grades that they may realize the place their own work takes in the sequence.

Grade I. or Junior I.

Color

The recognition of the six standard colors ; red, orange, yellow, green, blue and violet.

Representation

Simple flowers, grasses or sedges, paying particular attention to direction and shape of mass. Toys, birds, animals and the figure chiefly in illustration.

Illustrative Drawing

Games, sports, holiday experiences, special celebrations, fair day, circus day, etc. Nursery rhymes, simple fairy tales and stories full of action.

Picture Study

Telling stories based on pictures shown to class.

Design

Simple ornament, using flowers or simple objects familiar to the children. Repetition of the above units in borders. Coloring in design limited to one color with white, gray or black.

Printing of all letters that may be laid with sticks, occasional line drills should be given both at the seats and upon the black-board to gain correct holding of charcoal or crayon and free arm movement.

Mediums

Charcoal, colored chalks, colored crayons, black crayons and pencils having very large leads are the most satisfactory mediums.

Grade II. or Senior I.

Color

The recognition of the six standard colors ; red orange, yellow, green, blue and violet.

Representation

Simple flowers, blossoming twigs, plants and trees, noting direction and character of growth (slender and graceful, strong and sturdy) and shape of mass. Vegetables, toys and other objects that are interesting to the children. Animals, birds and children chiefly in illustration.

Composition.

Training in the selection of appropriate size and shape of sheet on which to place the drawing.

Illustrative Drawing

Games and outdoor sports, holiday experiences, with simple landscape settings. Myths and legends, illustration of reading and other lessons.

Picture Study

Telling stories based on pictures shown to class.

Design

Simple ornament derived from nature, simple geometric shapes or simple familiar objects. Repetition in borders and surface patterns aiming to secure regularity of size and spacing of units. The coloring in design to be limited to one color with white, gray or black.

Lettering

Capitals in simplest possible form.

Line Drills

To secure free arm movement and proper pencil, charcoal and crayon holding.

Mediums

Colored crayons, charcoal, chalk, brush and ink and pencils with large soft lead.

Grade III. or Junior II.**Color**

Recognition of tints and shades of color.

Representation

Plants, flowers, single leaves, stalks with leaves, sprays of seed packs, seed germination, trees and simple landscapes.

Note relative position and size of parts.

Simple objects, toys, means of transportation, animals and children, particularly in connection with illustrative drawing.

Composition

As in previous grades.

Illustrative Drawing

In connection with other school subjects, also games, sports, events and experiences. Use landscape or indoor setting.

Picture Study

Picture reading for the story and for some knowledge of the Artist.

Design

Simple units derived from nature, from geometric shapes, or from objects familiar to the children.

Repetition in surface patterns. Radiation round a centre in single units.

Practice in the use of ruler in measuring inch and half-inch, and for planning spaces for patterns. All designs to be applied, if possible, to objects constructed such as book-covers, calendars, etc. Coloring in these designs should be two tones of one color on gray, bogus or drawing paper upon which a gray wash has been painted previously.

Lettering

Plain capital letters proportioned to fit a space.

Mediums

Colored and black crayons, charcoal, brush and ink and lead pencil with large lead.

Grade III. or Senior II.**Color**

Hues of color.

Representation

Plants, leaves, flowers, sprays, aim to show life and growth, proportion and foreshortening of parts. Trees and simple landscapes. Silhouettes of plants, animals, birds and children chiefly from memory after careful study.

Classification of objects as resembling cube, sphere, cylinder, square and triangular prism and cone.

Silhouettes and pencil sketches of these objects. The study of two objects placed one behind and partly hidden by the other so as to see them correctly and place them on the paper as they appear.

Animal and figure drawing chiefly in illustration.

Composition

Placing of drawing on sheet with appropriate margins, trimming and mounting where necessary.

Picture Study

For knowledge of artist and his method of telling story. Children should become familiar with three or four good pictures by acknowledged masters.

Design

Flowers studied for units, and colors, and records of these made and kept for future use. Repetition, alternation and radiation. Simple constructive bases for the orderly arrangement of units in surface patterns. All designs to be planned for some definite purpose and applied where possible to articles constructed.

Coloring

A color with one of its hues on grayed or bogus paper.

Lettering

Plain capitals proportioned to fit a space.

Line drills for free arm movement and correct pencil holding.

Mediums

Three-color box of water colors, charcoal, brush and ink and lead pencil with large soft lead.

Grade V. or Junior III.**Color**

Complementary colors, graying of colors and three tones of gray.

Representation

Plants, sprays with flowers or fruits, noting particularly proportion and foreshortening of parts. Trees and landscapes. Animals, birds, insects. Memory sketches of children. Observation lessons on type solids and drawing from objects resembling the types. Grouping of objects. Effects of distance and position in relation to eye level. Pencil measurement to verify judgment of proportion and foreshortening. Compare all slants and curves with a verticle or horizontal edge.

Composition

The grouping of objects that naturally belong together and that are related as to size and shape. Appropriate size and shape of sheet and suitable margins. The use of "finders" in selecting the most interesting part of a sketch.

Illustration

In connection with other studies.

Picture Study

For a knowledge of the artist and his method of telling the story.
Becoming familiar with good pictures.

Design

Charts made from flower-forms for subsequent use in unit building.
Repetition, alternation, radiation. Rosettes. Borders and surface patterns with radial units. Constructive bases using square, oblong, diamond and drop square.

All designs as far as possible to be planned for application to articles constructed.

Coloring in these designs to be two tones of gray or two tones of a grayed color.

Lettering

Plain capitals to fit a space. Proper weight of letters for different purposes. The correct spacing of letters in words and sentences.

Mediums

Three-color box, charcoal, brush and ink and soft pencil.

Grade VI. or Senior III.

Color

Scales of value.

Representation

Flower and fruit sprays, noting proportion and foreshortening of parts, careful studies of joints, bracts and stems. In all pencil drawings try to express texture by quality of line. Trees—singly, in groups and in landscapes. Quick pencil or charcoal sketches and action studies of animals, birds and the figure and silhouettes from memory and from the model. The hemisphere, cylinder and cone—studied in all positions. Objects with handles singly and in groups. The effects of distance and position. Use pencil measurement and compare all slanting or curved lines with a verticle or horizontal edge.

Composition

Space divisions. Use of “finders” in determining best proportion and size and most pleasing position of object or group in a rectangle.

Illustration

In connection with other studies.

Picture Study

For knowledge of artist and his methods and to cultivate appreciation of the best pictures.

Design

Charts from flower forms. Unit building. Balance on either side of one axis, *i.e.*, bilateral symmetry. Single units to be used alone for decorating purposes. The breaking up of a given mass into rhythmic well-balanced shapes. Surface patterns for definite purposes. Constructive bases using oblong, drop oblong, circles or semi-circles. Plaids and stripes.

Coloring in these designs to be two or three values of one grayed color or two or three values from the neutral scale.

Lettering

Plain capitals to fit a space. Proper weight of letters for different purposes. Correct spacing of letters in words and sentences.

Mediums

Water-color box with three colors and black or India Ink, charcoal, brush and ink and soft pencil.

Grade VII. or Junior IV.**Color**

Scales of intensity. The making of color schemes of low intensity. Matching of colors in textiles.

Representation

Flower and fruit sprays carefully studying all details of structure—joints, bracts, buds, leaves unfolding. Sketches of type solids—cubical objects, as boxes, baskets, books, etc. Groups of objects. Effects of distance and foreshortening. Pupils discover through observation that receding, parallel, horizontal lines converge towards a point on a level with the eye. Quick pencil or charcoal sketches and silhouettes of animals, birds, etc. The pose.

Composition

Space divisions. Decorative arrangements within rectangular enclosing shapes, considering back-ground spaces.

Illustration

In connection with other studies.

Picture Study

For composition, technique, knowledge of the artist and to learn how to judge a picture.

Design

Charts from flower forms for unit building. Balance and rhythm in design. The breaking up of a given space into a design with related well balanced parts. Surface patterns planned, considering limitations of material to be used and fitness to purpose. Squared and conventionalized natural forms.

Coloring to be used in design. Groups of colors of low intensity and closely related neutral values. One color with black, gray or white.

Mottoes :—Decorative initials, Roman alphabet.

Mediums

Water color box with three colors and black (preferably charcoal gray) or India Ink, charcoal, brush and ink and soft pencil.

Grade VIII. or Senior IV.

Color

Rhythms and harmonies of color, monochromatic and analagous schemes.

Representation

Flowers and fruit sprays, trees alone and in land-scape. Careful studies of branching, all details of structure and textures. Quick pencil and charcoal sketches and silhouettes of animals, birds, insects, etc. The pose. The study of type solids especially cones, pyramids, square and triangular prisms. Objects singly and grouped for composition. The use of axes, diagonals and invisible edges as aids to correct drawing. Window sketches including chimneys or towers and roofs. Pupils discover through observation the perspective laws underlying the drawing of cubical objects turned at an angle. Light, shade and cast shadow.

Composition

Space divisions, figure and flower compositions in neutral values and in grayed colors.

Illustration

In charcoal, brush and ink and in neutral values, of school essays. The interpretation of word pictures using appropriate mediums.

Picture Study

For composition, technique, knowledge of the artist and to learn how to judge a picture.

Design

Plaids and stripes. Balance and rhythm. The use of the stencil and wood block. Rosettes. The abstract spot in surface patterns and borders. Balance of unlike parts. Relation of decorating mass to space decorated, comparison of Egyptian, Greek and Roman, architecture and ornament, noting growth of ornament.

Lettering

Decorative initials. Roman alphabet. Mottoes.

Coloring

Monochromatic and analagous schemes, neutral values, one color with black, white or gray.

Mediums

Charcoal, brush and India ink, water colors and pencil.

INDUSTRIAL ARTS.

NOTE.—A well illustrated manual should be prepared for each form. This should contain sketches and drawings of suitable objects, with suggestions for modifications, information as to materials and methods and such other help as will enable the teacher without training to undertake this work in the schools.

The object of training in the industrial arts is mental development and physical control, and in a secondary degree to give some elementary ideas regarding industrial life. The making of things and the achievement of skill, while exceedingly important, should at first be subsidiary to the thought processes involved and the exercises should sustain the child's interests, take advantage of the child's desire to construct, and the objects themselves should bear some definite relation to each other.

Constructive work should make the ability to do a part of the knowing, and should incorporate knowledge into habit and theory with practice. The amount of work accomplished is unimportant in comparison with the mastery of correct methods and the formation of good habits. Every opportunity should be given the pupils to modify given type models or to design new ones, and in the lower grades to rearrange given units or create new combinations. All of the work should have in it the elements of beauty in construction, in proportion, and in decoration. Though we may not be able to add to the quantity or the variety

of the material, we can modify its form and we can arrange it in new combinations. The making of new forms and combinations, the giving of definite expression to ideas and mental images, the rendering of the inner outer, is the great Fröebelian doctrine of creativeness.

Grade I. or Junior 1.

Paper cutting, tearing and folding

- a. Representation of common objects such as leaves, flowers, fruits and objects to be found in the school and the home.
- b. Illustrations of stories or parts of stories from reading books, fairy stories, seasons, games, such as The Three Bears, Jack and the Bean Stalk, Christmas, Skating, Basket Ball, Tobogganing.
- c. Folding to teach simple geometric figures—square, rectangle, right-angled triangle.

Making of Objects

The work here should be grouped round some centre so that each object made shall have some definite relation; e.g., the furnishing of a doll's house with paper furniture, supplies ample material for a year's work. These articles can all be made from simple foldings, and at this stage no closer measurement than half an inch should be required.

Clay Modelling

Representation of natural objects, as orange, apple, onion, tomato, potato, egg, simple leaf. Common objects, as box, bird's house, small loaf of bread, cup (without handle) and saucer, flower pot and saucer, basket, tea set and tray.

NOTE.—In the above, all modelling should be done from the actual object, as many being provided as will enable each child to make a thorough examination.

Free Modelling

NOTE 1.—Under this head the children should make what they wish, and should be encouraged to invent forms and patterns for themselves.

NOTE 2.—Clay modelling should be so treated as to become an aid to conception of form. It should also be correlated with Nature Study.

Grade II. or Senior 1.

Paper Cutting

Cutting of objects that require finer work than in Grade I. Illustration of stories, common land and water forms as taught in the geography course for this grade. Simple geometric figures—circle, equilateral triangle. Cutting and mounting pictures, drawings, calendars. Rule, color and cut, geometric forms, and use the same as units in building up patterns and borders.

Making of Objects

Stouter paper than in Grade I. to be used. Make a large envelope to contain cuttings and drawings. Objects made should be more accurately constructed but still be related. Suitable centres round which the work may be grouped are transportation, trades and industries, buildings, gardens, shops, postal service, fire department. One or more of these should be developed. Making book covers.

Clay Modelling

Representation of natural objects requiring more detail than in Grade I., such as maple-leaf, tomato. Modelling from memory, using any well known object, such as loaf of bread, bottle, small bowl.

Free Modelling

Grade III or Junior II.

Paper

Continue work of Grade II., but requiring greater accuracy in measurement and introducing quarter-inch measurement. Review the geometric figures taught in previous grades. Each form should be studied separately, and names and properties developed. Objects such as wall pockets, boxes, trays, baskets, boats, windmill. At this stage simple appropriate design may be used in the decoration of the object.

Clay Modelling

Representation of natural forms such as apple, beet, leaves of trees in the neighbourhood, apple and twig. Representation of common objects such as cup with handle, saucer, flower pot, piece of coal. Illustration of the land and water forms taught in this, and the previous grades and combination of several of these in a simple relief map.

Grade IV. or Senior II.

Card Board Modelling

Light-weight cardboard to be used. The use of the compasses in the construction of the hexagon and the octagon. Making of various objects based on the triangle, hexagon and octagon, such as candy boxes, trays, twine holders. Measuring various simple objects such as chalk boxes, pencil boxes, and drawing to full and half scale. Modification of given patterns. All geometrical terms taught in previous grades should be thoroughly reviewed. Making simple repairs to damaged books.

Grade V. or Junior III.

Cardboard Modelling

Continuation of cardboard modelling introducing cutting with the knife. Making of objects composed of two or more pieces such as match holders, whisk holders. Cutting picture mats. Solid figures, such as cube, square prism, hexagonal prism. Review full and half scales and introduce quarter scale. Plan of school room and school grounds, properly dimensioned and lettered. Each pupil to take his own measurements, introducing arithmetical calculations in the working out of the scale.

Grade VI. or Senior III.

Mechanical Drawing

Use of drawing board, tee square, set square and compasses. Simple plans and elevations properly lettered and dimensioned. Scales one-half, one-quarter and one-eighth and their use in industrial life.

Work in Thin Wood

One piece models such as top, plant labels, pencil sharpeners. Models consisting of two or more pieces such as brackets, flower ladders, toy furniture, flower-pot stands. Use of brads, screws and glue. Basswood either three-sixteenths or one-quarter of an inch thick is the best wood for this purpose. The desk-top should be protected by a sheet of stout mill board. Talks on basswood and pine.

Grades VII. and VIII. or Junior and Senior IV.

The work of these grades should be taken in a properly equipped manual training room, but where this cannot be obtained, much good and useful work can be done by the provision of one or two benches. Every rural school should have at least one bench with a set of tools. In some cases a long bench fixed to one of the walls of the class-room will be found best. Where no provision can be made for a bench of any description, the knife work of the previous grade should be continued with much greater stress on the mechanical drawing. Use of simpler wood-working tools, as saw, chisel, plane, rule, gauge. Exercises embodied in a complete useful model, and intended to give facility in the use of these tools, as laying out and truing up pieces to dimensions ; cutting grooves ; making of objects easily constructed and either useful or ornamental, as rulers, keyracks, boxes, brackets, brushholders, penracks, inkstands, school apparatus. Short talks on the construction of tools and on the material used.

HOUSEHOLD SCIENCE.

Grade I. Elementary stitches on canvas with worsted. Canvas needle book, holder or pencil case. Talks on wool. Talks on wheat, flour and bread.

Grade II. Elementary stitches continued. Button bag, pin cushion. Talk on cotton. Talks on milk and eggs.

Grade III. Simple stitches. Sewing on buttons and hooks. Simple darning and mending. Talks on the manufacture of buttons. Talks on cereals.

Grade IV. Hemming, running, basting. Sewing on loops, tapes. Darning and mending. Talks on the different animal and vegetable fibres. Talks on washing clothes.

Grade V. First ideas of cutting out. Advanced stitches applied to small garments. Hemmed patch. Fine mending. Making and working buttonholes. Talks on cleaning house.

Grade VI. Dressing a doll. Talks on fruits and setting and serving a table.

Grades VII. and VIII. This work, where possible, will be taken in a room set apart for cookery, but in a large number of schools this will not be found possible. In those cases excellent work may be done with an equipment designed by Macdonald Institute. A description of this will be found reprinted in the Report of the Inspector of Technical Education for 1908. The following course provides for two years' work :—The home, its functions, care of the house; various rooms and their uses; division of work in the care of house, preparation of food, cleaning methods. Examination and study of equipment in classroom. Detailed study of methods of cooking with the object of acquiring facility of manipulation and measurement as well as a knowledge of the processes of cookery; boiling, simmering, steeping, steaming, broiling, pan-broiling, sauteing, frying, baking; each method to be illustrated by the cooking of one or more articles of food after the principles have been carefully studied. Fuels: coal, wood, gas, electricity, kerosene, alcohol, gasoline, coke; building and care of fires. Effects of heat upon common food materials, water, fresh and dried fruit, non-starchy vegetables, potatoes, legumes, breakfast cereals, flour (a study for thickening purposes only), milk, eggs, meat, fish. The composition and nutritive value of each food—a simple study only. Classification of foods.

Fruit preserving, canning, etc. Yeasts, combination and cooking of various food materials.

Planning, cooking, and serving a meal; marketing, cost; routine of work, table setting, serving; table manners.

Care of kitchen, utensils, etc. ; dish washing ; towels ; special methods of cleaning tin, granite, iron, brass, wood.

Laundry studies, with simple equipment. Soft and hard water, hot and cold water ; soap, soda, etc., their effect upon various fabrics ; preparation of clothes for laundry ; removal of stains ; starching and ironing.

Course of Grades V. and VI. in needlework continued ; cutting and making simple garments.

HYGIENE AND TEMPERANCE.

General Suggestions.

In the subject of Hygiene and Temperance the aim of the teacher in the lower forms of the Public School should be to implant firmly in the mind of the child the simple rules of health and to see that correct habits are formed in relation to these. These hygienic rules should be few, simple, direct and such as may readily be followed both in school and home. As living a wholesome physical life is more a matter of good habits than of knowledge, it is necessary that the teacher endeavor in every way possible to form correct habits in the children. The teaching of scientific Hygiene and Temperance should be confined to Grades V, VI, VII and VIII. In rural schools the children may well be divided into two sections for this work, the first four grades in Section I, and the other four in Section II.

Grade I. or Junior I.

Cleanliness : Every child should be required to come to school with clean hands, face and neck and with hair neatly combed. Boots and clothes should be clean and neat. Constant emphasis should be placed on the practice of cleanliness. Pupils should understand its relation to health, and self-respect. Simple talks should be given on the care of the hands, nails, teeth, hair and skin.

Sunshine and Fresh Air : Children should be taught that it is good for them to be out in the sunshine. They need sunshine for growing as much as plants. Illustrate by plants that have grown in darkness and shade, e.g., potatoes in a cellar and saplings in a bush. The need for fresh air may be shown by drawing their attention to the inflow of fresh air and the outflow of impure air in the school room, or by opening the windows at recess and other times. Keep the school room as bright and as well aired as possible.

Food : Eat enough plain wholesome food but waste none. Drink plenty of water, and milk, but very little tea or coffee. Eat very sparingly of sweets or pastries. Eat slowly, both because it is healthful and because it is good manners.

Exercise, Play and Sleep : Exercises and marching should be practised at intervals during school hours. The body needs exercise as well as the mind ; exercises to develop the muscles and to expand the chest ; breathing exercises to fill the lungs with fresh air ; marching to develop erect bearing and correct position when standing or walking.

Play : The child should be encouraged to play games out of doors and to tell of them in school. Unrestrained play is the best form of physical exercise.

Sleep : Small children should go to bed early to get plenty of sleep ; fresh air during the night a necessity ; the open window in the bedroom ; danger from draughts.

Habits : Note carefully the seating of each pupil, as desks are frequently too high, too low or too far apart. Constant effort should be given to the formation of correct habits of sitting at desks, standing and walking. Position and movement should be as free and unconscious as possible. Unselfishness, consideration for others, gentleness and courtesy should be cultivated through teaching and practice.

Grade II. or Senior I.

Work of previous grade reviewed and continued.

Cleanliness : Constant attention should be given to cleanliness of person and clothing with the object of forming good habits. Instruction in regard to the cleanliness and care of the skin, eyes, ears, nose, mouth, nails, body, hair ; cleanliness of hands and face particularly at meal time.

Sunshine and Fresh Air : Why are flowers more abundant in the woods in the spring before the leaves come out than later in the summer ? Emphasize the relation between sunlight and health for both plants and animals.

Simple Lessons on the Air : Pure air and things that spoil it ; breathing air that has been breathed by others several times ; dust in the air ; moisture in air forming frost on the window and dew on the grass ; effect of a rainstorm on the air. Means of getting fresh air into and impure air out of a schoolroom, e.g., windows, doors, chimneys, ventilators. By means of smoke from a small strip of brown paper show the currents of air going out of and coming into a room.

Food : Food is the fuel of the body ; the necessity of plenty of wholesome food. Simple lessons on eating, drinking and breathing to impress on the pupil that our power to do work even when healthy depends on the supply of proper fuel. Stories, songs, and recitations that may serve to impress the evil effect on the body and mind, of alcoholic stimulants and tobacco, and to inculcate total abstinence from both.

Exercise, Play, and Sleep: Exercises of previous grade continued and extended. Outdoor school games should be encouraged for both boys and girls of this age. Children to twelve years of age should have ten hours' sleep every night.

Habits: Careful attention to seating of pupils. Correct habits of sitting, standing, and walking. In standing the weight of the body should be thrown on the ball of the foot, not on the heel, the head should be erect and the shoulders back. A rigid posture is unnatural and produces strain which should be carefully avoided.

Grade III. or Junior II.

Work of previous grades reviewed and continued.

Cleanliness: Pupils are now old enough to be responsible for cleanliness of person and clothing, and this should be expected. Profane and unclean habits of conversation. The evil effect of cigarette smoking on body and mind.

The Skin: Moisture given off from the skin as shown by placing the warm hand on a cold window-pane; observation of oil that appears on the skin. The outer or scarf skin is being shed constantly. This may be shown when the skin is rubbed hard by the wet hand without soap. The necessity for keeping the skin clean owing to the gradual decay of this mixture of sweat, oil and scarf skin. The relation of cleanliness to health and to self-respect.

The Framework of the Body: Regard the body as the temple of the soul. The bones as the framework of the body; their attachment to each other at the joints by ligaments; the cushion of cartilage on the end of each bone; the attachment strengthened on the outside surface by tendons and muscles. How the growth of the cartilage and ligaments may be affected by sitting at desks too high, or too low, or by wrong habits of sitting, standing or walking. The evil results that follow e.g., the curved spine, the raised or drooping shoulders, the shuffling gait, the awkward bearing and the general loafing appearance. The necessity for erect bearing; the effect on the appearance and on the mind; it tends to develop a sense of manliness, honor, courtesy, a respect for self and a regard for others.

Grade IV. or Senior II.

Work of previous grades reviewed giving special attention to sunshine.

Sunshine: Illustrate its effect on the growth of plants by a reference to the absence of grass under an open verandah or shed, under evergreen trees with low branches, in a bush except in open places, etc.; compare the appearance of a maple growing as a shade tree and in the bush; account for the appearance of saplings in the bush, the cone shaped appearance of fir trees, the location of the

leaves on trees near the outer ends of the branches, the carpet of needles under fir trees (evergreens). Compare the color of the skin of people from warm, sunny climates with that of people in colder climates; compare the appearance of people who work outside with those who work inside. From the above, lead the pupil to realize the relation between sunshine and health.

Air: Things that spoil fresh air; (1) dust and smoke, (2) substances in the air that has been breathed.

(1) *Dust:* The presence of chalk dust, dust that rises from the floor when pupils walk, and dust blown in from outside may be shown by rubbing the walls or woodwork with a white cloth. If the room can be darkened so as to admit only a ray of light the dust may be seen floating in the air.

(2) *Air that has been breathed:* (To make limewater put some fresh lime in a bottle, shake well and allow the whole to stand for a day.) Pour some clear limewater into a glass and ask a pupil to blow his breath into it through a straw. Using some fresh limewater blow the air of the class-room through it by means of a bicycle pump. Test the outside air in the same way and compare results. The pupils may be told that the whitish appearance in the water in the first, and perhaps in the second case, is due to a substance in the air we exhale and this substance renders it unfit for use.

Ventilation: Observations, and discussions about the cause of drowsiness and headaches in schools, or after meetings in crowded halls. Need for ventilation in homes, schoolrooms, churches and halls. Proper temperature of the schoolroom (66 to 70 degrees).

Food: The food of various domestic and wild animals; the methods of seeking, seizing or otherwise obtaining it; the relation of these to habits of life, and to shape and arrangement of the teeth. Domestic animals without teeth, e.g., the hen; the nature of the food and the means of grinding it in such cases; comparison of alimentary canal of man and fowl; need for complete chewing of food.

Grade V. or Junior III.

Work of previous grades reviewed and extended.

Air: Fresh air; ventilation; impurities in air, e.g., spores and germs. Illustrate spores by gently squeezing a ripe puffball; show their presence in air by placing some jelly or the juice of preserved fruit in a dish, leaving it exposed to the air in the schoolroom for a few hours, and, after covering it, allowing it to stand for some days. Direct the attention of the pupils to the mould on bread, leather, fruits; to the rot of fruit, decay of trees, scabs on apples, etc., as other examples of the result of spores floating in the air. From this the pupils may be led to understand the danger of infection in such cases as measles, diphtheria and consumption.

Tobacco : Its uncleanness, offensiveness and injuriousness.

Care of the body : The skin, hair, teeth.

Food : Food as fuel for the body; foods suitable to animals but not to man; effect of overeating as in adding too much fuel; effect of poor food as in poor fuel. Simple talks leading to a general understanding of the way in which the food is digested and absorbed into the blood.

The Blood : The pumping action of the heart forces the blood to all parts of the body ; simple talks on the flow of the blood ; the pulse caused by the heart-beat ; arteries and veins ; the work of the blood in bringing nourishment to all parts of the body and in carrying away the waste matter.

Exercise : Causing the heart to pump faster, thus increasing the flow of the blood ; effect of use and disuse of any part of the body on increasing or decreasing the blood supply and, therefore, on the proper development of those parts ; need for exercise, both mental and physical ; danger of too violent exercise ; need for deep breathing to exercise every portion of the lungs ; effect of tight clothing on the expansion of the chest and lungs ; unhealthy condition of any unused portion of the lungs ; danger that spores of consumption taken into the lungs with the air may find a suitable place to grow on these delicate parts, or on those parts of the lungs inflamed during heavy colds.

Grade VI. or Senior III.

Work of the previous grades reviewed.

Food (1) Of plants. (2) Of man.

1. Simple talks on how plants obtain their food ; compare the growth of plants during wet and dry seasons and account for the difference ; the value of a plentiful supply of food.
2. The contents of suitable food ; foods rich in each content ; foods containing all ; milk the food of the young ; the necessity for a variety of food ; why foods spoil.

Care of the body : The eye and ear.

Digestion : Simple talks leading to a general knowledge of the necessity for complete chewing of the food, the use of the saliva, the action of the stomach, the important digestive juices, absorption of the digested food into the blood ; the effect of fatigue, either physical or mental on digestion ; the danger from overeating.

Circulation : The general structure of the heart ; the danger from overwork of the heart during running, jumping, lifting or violent exercise of any kind. Arteries, capillaries, veins with their function and relation. The use of the blood in bringing nourishment and carrying off waste matter.

Infectious and contagious diseases : Their cause ; the necessity for cleanliness and isolation ; the importance of quarantine during epidemics ; the certainty of spreading disease if the supply of water or milk has become infected ; the duties of the Board of Health and the Medical Health Officer. Consumption : its cause and treatment ; the danger from infection.

Alcohol and narcotics : The effect of alcohol and tobacco on the heart, digestion, general health, growth, physical and mental endurance, particularly of youth ; the danger of forming the alcohol and tobacco habits.

Grade VII. or Junior IV.

Work of the previous grades reviewed.

Air : Composition of fresh and exhaled air ; ventilation ; impurities in air, particularly germs of contagious and infectious diseases ; means of preventing them from spreading ; disinfection.

Respiration : Talks, with illustrations to give a general knowledge of the structure of the trachea and lungs ; the circulation of the blood within the thin wall of the air cells ; the mechanism of breathing ; the necessity for deep breathing so as to use all parts of the lungs ; the danger that unused or inflamed parts of the lung may become attacked by the spores of consumption.

Foods : The work of the lower grade reviewed and extended ; drinks ; the effect of stimulants and narcotics.

Care of the body : The nose and throat.

Habits : Pupils should be taught the effect of habits whether good or bad ; how habits are formed ; the importance of forming good hygienic mental and moral habits.

Emergencies : Pupils should receive instruction and training in what to do in such emergencies as fainting, bleeding, apparent drowning.

Grade VIII. or Senior IV.

The work of previous grades reviewed.

Talks with illustrations, to give a general knowledge of the structure of the vocal organs, their function and care ; the function and protection of the brain, the necessity for rest, sleep and mental exercise ; the function and protection of the spinal cord ; the function of the nerves.

Alcohol and narcotics : The effect of alcoholic stimulants and narcotics on the brain and nervous system, the mind, the heart, digestion, physical and mental endurance, growth and general health.

Habits : The effect of habits, good or bad, on the physical, mental and moral life should be strongly emphasized ; the danger of forming bad habits during youth when the evil effect is not realized ; the danger of becoming mere creatures of habit ; the relation of these physical, mental and moral habits to health ; the relation of health to happiness and efficient work should be impressed on the pupil ; the effect of high purpose and determined will on the health of the body as well as on the mind and character.

Emergencies : Pupils should be given instruction and training in bandaging and in " first aids " in cases of fainting, bleeding, drowning, dislocations, fractures, burns, sunstroke and poisoning.

NATURE STUDY.

Changes : The outline for 1904 has been used throughout as the basis for the present outline. Such topics as those relating to land surfaces, industries, weather and stars have been transferred to the Geography ; other topics, such as animal organs and functions, and the mechanical principles applied to the construction of common tools and implements have been left out. Nearly all the additions have been in the nature of studies in Elementary Agriculture for use of the rural schools especially. The work in gardening has been outlined somewhat specifically for the better guidance of the teacher. The whole outline does not include as much work as the former one,

Limitations in the Work : From the character of the subject the course must be more or less elastic. The topics detailed in the programme are intended to be suggestive, rather than prescriptive. It may be that owing to local conditions topics not named are amongst the best that can be used. It is claimed for the work, that a child on leaving school is entitled to be acquainted with the common things about him—trees, weeds and flowers, soils and rocks, birds, insects and other animals—and that the acquaintance has been brought about through self activities directed by his teacher. Towards the end of the course, the character of the work will tend towards that of Elementary Science.

Aim and Method : The acquisition of knowledge must be made secondary to awakening and maintaining the pupil's interest in nature and to training him to habits of observation and investigation. The pursuit of this aim determines the method to be employed. *The teacher's first office lies in setting reasonable, interesting problems or tasks which the child's mind is to find exercise in answering—the child is " to do something in order that he may learn something."* *The teacher's second office consists in stimulating and directing the*

child's inquiry so that satisfactory answers may be found for the problems. Thus by using the phenomena of nature as a means, the child is trained to be an observer and investigator. Moreover in the process of training he is brought into an intelligent, sympathetic accord with Nature that makes for a better adjustment with his environment.

The treatment of the subject must always be suited to the age and experience of the pupils and to the seasons of the year, accessibility of materials, etc. Notes shall not be dictated by the teacher. Mere information, whether from book, written note or even from the teacher, is not Nature Study. In ungraded schools, all the classes may often take the lessons together.

Reading, etc.: Books for reference and supplementary reading should be provided in the school library. Some valuable publications on the subject of Nature Study, for the teacher's use, may be obtained free on application to the Department of Agriculture, Toronto.

The "School's" Section of the Ontario Agricultural and Experimental Union, O.A.C., Guelph, offers assistance in practical Elementary Agriculture in the way of providing material for children's gardens and simple experiments.

Grades I. and II. or Junior I. and Senior I.

Plant and Animal Studies.

FALL.

Animal Life

Birds: Fall migrations; last appearance of Robin, Bluebird, Swallow.

Insects: Withdrawal of insect life; last appearance of butterflies; gathering cocoons after the leaves have fallen; collection of larvae to be kept in boxes in school-room.

Plant Life

Gardening: Planting bulbs of tulips and narcissus in the school garden for early spring blooming; planting bulbs in pots for forcing for winter-bloom at home.

Leaves: Forms, tints, and collections of autumn leaves; dates of falling.

Buds: Examination of tree buds to note their location and covering as a winter protection, e.g., Apple, Poplar and Horse-chestnut.

Fruits: Consideration of forms, varieties, uses of common fall fruits of the locality, e.g., Apples, Pears, Grapes.

Seeds: How seeds are spread, e.g., Canada Thistle, Milkweed, Burdock.

Roots and Stems: Forms, varieties and uses of common vegetables, e.g., Turnips, Carrots, Potatoes, etc.

WINTER.

Animals

Pet Animals : Appearances, habits, care, food, e.g., Cat, Dog, Rabbit, Canary.

Farm Animals : Habits, care, food, uses, e.g., Horse, Cow, Sheep, Pig.

Birds : Observation of appearance and habits of winter residents, e.g., Chickadee, Blue Jay, Crow; of Winter visitors: Snowflake (Snowbird).

Plants

Agricultural : Care of winter-blooming plants at home and school. Activities of the farm during winter; the barn and its uses; sports and social life; comparison of the pioneer's life and work with modern farm life and work.

SPRING.

Animal Life

Birds : Observation of appearance, food and habits of chicks, ducklings and goslings. Observation and recording of return from south of Robin, Song Sparrow, Bluebird, Swallow, also nesting, song, food, and enemies of House Sparrow, Robin, Grackle, Crow.

Birds to be recognized : e.g., Junior—Robin, Bluebird, House-sparrow, Grackle, Crow. Senior—Song Sparrow, Chipping Sparrow, Bobolink, Meadow Lark, Goldfinch.

Insects : Development of cocoons gathered in fall and winter, appearance of common butterflies.

Plant Life

Gardening : Propagation of geranium cutting in school window-box or at home, growing one flower and one vegetable in a home or school garden plot, e.g., Junior—Nasturtium and Lettuce. Senior—Sweet Peas and Radish.

Leaves and Buds : Opening of buds and expansion of leaves, e.g. Lilac, Horsechestnut, Apple.

Wild Flowers : Excursions to woods ; wild flower plot in school grounds, noting first appearance and recording on flower chart ; e.g., Junior—Spring Beauty, Hepatica, Bloodroot, Marsh Marigold, Dandelion. Senior—Violets, Buttercups, Trilliums, Jack in the Pulpit, Adder's Tongue.

Garden Flowers : Early spring flowers about school: Crocus, Tulip, etc. Observation on development in children's own garden; bouquets for school.

Seeds : Observation of germination of seeds planted in children's gardens or window boxes.

Agricultural : Farm occupations, sugar making, sowing, plowing.

Grades III. and IV. or Junior II. and Senior II.

FALL.

Animal Life

Birds : Records of fall migrations and last appearances, e.g., Junior—Blackbirds, Robins, Bluebirds, Swallow. Senior—Juncos, Sparrows, Wild Geese, Plover.

Insects : Collection of larvae or cocoons of the Emperor Moths for wintering, e.g., Junior—Promethea (The Black Emperor), Polyphemus (The Great Eyed-Emperor). Senior—Cecropia (The Great Emperor), Io (The Small Eyed-Emperor), Luna (The Green Emperor).

Wild Animals : Appearance, habits, food, e.g., Junior—Chipmunk, Woodchuck. Senior—Squirrel, Muskrat.

Plant Life

Flowers and Fruit : Development of fruit from flower as seen in, e.g., Junior—Sweet Pea, Tomato. Senior—Nasturtium, Pumpkin.

Wild Flowers, etc. : Common autumn flowers, e.g., Junior—Goldenrod, Asters, Yarrow, Touch-me-not. Senior—Wild Clematis, Virginia Creeper, Boneset, Joe Pye Weed.

Trees : Observation of leaf, bud, twig, and leaf-fall of one common shade and one forest tree, e.g., Junior—Maple and Horsechestnut. Senior—Elm and Box Elder (Manitoba Maple).

Garden Work : Harvesting and storing vegetables grown in children's gardens; gathering flower seeds; fall bulb planting at home and school; fall cultivation of garden plot preparatory to winter.

WINTER.

Animal Life

Farm Animals : Common breeds; e.g., Junior—Horses, Pigs. Senior—Cattle, Sheep.

Household Pests : Appearance, habits, food, destructiveness, e.g., Rats and Mice.

Plant Life. Imported fruits and nuts sold in shops, where they are grown, how they are shipped, the uses made of them.

SPRING

Animal Life

Birds: Further acquaintance with common forms : e.g., Junior—Barn Swallow, Chimney Swift, Baltimore Oriole, Flicker, Hummingbird. Senior—Blue Jay, Kingfisher, Heron, Phoebe, Wren, Catbird.

Insects: Observation of life histories and activities of common forms, e.g., Junior—Cabbage Butterfly and Clover Butterfly. Senior—Grasshoppers and Ladybird Beetles.

Garden Animals: Form and habits of the following: e.g., Junior—Earthworm. Senior—Common Garden Toad.

Aquarium: Development of frog or toad from the egg, e.g., Junior—Frog. Senior—Toad.

Plant Life

Flowers and Fruit: Observation of the blossoming and fruit-setting of common fruits and vegetables, e.g., Junior—Apples and Beans. Senior—Plums and Peas.

Wild Flowers: Further acquaintance with common forms, e.g., Junior—Anemone, Blue Cohosh, Blue Flag, Columbine, Wild Geranium. Senior—Flowering shrubs and trees, Lilac, Hawthorn, Honeysuckle, Spiræa, Cherry.

Trees: Recognition of common trees; opening of buds, flowers and leaves of common forest and shade trees: e.g., Junior—Maple and Horsechestnut. Senior—Elm and Box Elder (Manitoba Maple).

Garden Work: (1) Class plot in school garden, e.g., Junior—Growing different kinds of onions. Senior—Growing different kinds of beets. (2) Garden plots of one flower and one vegetable in home or school garden, e.g., Junior—Marigold and Beets. Senior—Corn Flower and Spinach. (3) Propagation of cuttings, e.g., Junior—Begonia. Senior—Coleus.

Grades V. and VI. or Junior III. and Senior III.

FALL.

Animal Life

Previous studies continued on (1) Fall migrations of birds; (2) Breeds of Farm Animals; (3) Life histories of moths and butterflies.

Birds: Comparison of different breeds of domesticated birds, e.g., Junior—Pigeons, Ducks, Geese. Senior—Hens, Turkeys.

Insects : Observation of life and activities of beneficial and injurious forms, e.g., Junior—Dragon Flies and Grasshoppers. Senior—Ladybird Beetle and Colorado Beetle.

Wild Animals : Appearance, habits, food of : e.g., Junior—Mice, Mink. Senior—Bats, Fox.

Plant Life

Previous work continued. (1) Harvesting garden products and preparing plots for winter ; (2) Wild Flower Studies continued, e.g., Junior—Mallow, Blue Vervain, Catnip, Milkweed, Heal All. Senior—Poisonous Plants—Nightshades, Spurges, Jimson Weed, Thorn Apple, Water Parsnip, Poison Ivy. (3) Tree studies continued: e.g., Junior—Maples and Elms. Senior—Oak, Birch, Beech, Cedar, Spruce.

Fruits

Comparison and recognition of varieties of fall fruits : e.g., Junior—Apples (5 varieties), Grapes (3 varieties), Pears (3 varieties). Senior—Apples (10 varieties), Grapes (5), Pears (5), Peaches.

Farm and Garden Crops

Observation and discussion of methods of cultivation and harvesting ; estimates of yields ; classification of varieties : e.g., Junior—Root Crops, Corn, Clovers. Senior—Cereals, Grasses.

Weeds and Seeds

Observation and recognition of common weeds. Collections of pressed specimens and their seed, e.g., Junior—*Garden Weeds* : Pigweed, Purslane, Lamb's Quarters, Shepherd's Purse, Groundsel. Senior—*Field Weeds* : Canada Thistle, Ox Eye Daisy, Sow Thistles, Rib Grass, Mustard.

WINTER.

Previous work continued on (1) Winter bird residents or visitors ; (2) Wild animals of the neighborhood.

Animal Life

Reading of nature literature with discussions ; consideration of adaptations of different kinds of animals to their surroundings. Observation and recognition of furs bought and sold or used locally. Consideration of industrial and domestic use of products of farm animals. Trade in wool, leather, glue, fertilizers, meats, cheese, butter. Habits and life histories of our wild game ; game laws ; laws protecting insectivorous birds.

Plant Studies

Uses of Plant Products : Consideration of industrial and domestic uses of (1) Our farm and garden crops, e.g., Junior—Flours, Oatmeal, Starches, Syrups, Table Vegetables, Flax. Senior—Feeding of farm animals, cooking of vegetables, etc. ; (2) Consideration of Lumbering Industry ; uses of different woods ; exports and imports.

Experimental (on Seed Grains). (1) Testing the germinating strength of samples of seed grain ; (2) Examination of seed grain, grasses or clover for weed seed impurities.

General

Soils : Observation, recognition and classification of the soils of the neighborhood ; the effects of wintering on soils. Simple soil experiments : e.g., Junior—To make a simple soil analysis by separating the constituents, (O.A.C. Bulletin No. 124.) Senior—To determine the water holding capacity of different kinds of soils.

Water : Consideration of water supplies, rainfall, hardness, softness and purity, simple experiments, e.g., Junior—To test samples of water for hardness by comparing the curdlings made by soap. Senior—(1) to test samples for impurities by setting sealed bottles of suspected samples in sunlight and noting odors ; (2) to measure rainfall with an upright sided dish used as a rain guage.

Heat : Consideration of methods of transmission of heat ; air currents and systems of ventilation ; construction and graduation of thermometers ; simple experiments, e.g., Junior—to show the effects of heat in the expansion of liquids, solids and gases. Senior—(1) to take readings of temperature with maximum and minimum thermometers ; (2) to test local thermometers for accuracy.

SPRING.

Animal Life

Previous Work Continued on Birds and Insects.

Birds : e.g. Junior—Red-winged Blackbird, Cowbird, White-breasted Nuthatch, Killdeer Plover, Sapsucker ; Senior—Vesper Sparrow, Cedar Waxwing, Yellow Warbler, Kingbird, Great Blue Heron.

Insects : e.g., Junior—Water Striders, Water Boatmen, Back Swimmers, Caddice, Flies, Giant Water Bugs (Electric Light Bug) ; Senior—Plant Lice, House Fly, Mosquitoes, Bees, Clothes Moths, Buffalo Moth.

Birds

Observation on the natural and artificial hatching of chicks

Fishes, Amphibians and Reptiles

Observation and recognition of common fishes caught in neighborhood or sold in shops ; common snakes and frogs.

Aquaria and Vivaria : 1. Observation of movements, breathing and feeding of fish in aquarium. 2. Observation of development of mosquitoes. 3. Observation of feeding habits of toad, frog or snake kept in vivarium.

Plants

Previous Work Continued on Wild Flowers and Trees :

Wild Flowers : e.g., Junior—Bishop's Cap, False Mitrewort, Common Cattail, May Apple (Mandrake,) Water Cress ; Senior—Dutchman's Breeches, Squirrel Corn, Baneberry, Meadow Rue, Water Leaf.

Trees : Conifers, e.g., Junior—Pines, Tamarack; Senior—Larch Hemlock, Balsam.

Fruits

Comparison and recognition of varieties of earlier local fruits, e.g., Junior—Strawberries, Currants, Gooseberries; Senior—Cherries, Raspberries, Plums.

Farm and Garden Crops

Observation and records of seeding operations, growth of crops, weather conditions, etc.

Weeds.

Observation of the different weeds growing amongst garden and field crops.

Garden Work

1. Class plot for trees in school garden; e.g., Junior—Growing seedling fruit trees ; Senior—Growing seedling forest and shade trees. 2. Garden plots of one flower and one vegetable in home or school garden; e.g., Junior—Petunia and Beans; Senior—China Pinks and Carrots. 3. Propagation of cuttings; e.g., Junior—Currants and Gooseberries ; Senior—Grapes and Asparagus.

Grades VII. and VIII. or Junior IV. and Senior IV.

The observational work of Form IV. should be largely in the nature of reviewing and extending the studies of previous years. The new work should partake more of the nature of elementary experimental science, emphasizing those interests that will be most helpful to the pupils in interpreting phenomena connected with their daily lives and work.

FALL.

Animal Life

Previous studies continued on: (1) Birds; (2) Insects; (3) Farm animals; (4) Garden animals.

Economic Insects: Further observation of habits and life histories of economic insects. e.g., Junior—Tossock Moth, Tent Caterpillars. Senior—Borers, Maggots, Oyster-Shell Bark-Louse, San José Scale.

Plant Life

Previous studies continued on: (1) Wild Flowers; (2) Farm and Garden Crops; (3) Fruits; (4) Trees.

Plants in Societies: Observation of the plants associating in some special localities: e.g., Junior—Plants of the vacant lots, roadsides, railway tracks and river courses; Senior—Plants of the woods, ponds, marshes, lawns, cultivated fields; “burns” and “slashes.”

Flowerless Plants: Observation and recognition of: e.g., Junior—Lichens, Liverworts, Mushrooms, Bracket Fungus, Puff Ball; Senior—Mosses, Ferns, Horsetails.

Plant Diseases

Observation and recognition of common diseases: e.g., Junior—Rots of Apples, Grapes, Plums and Potatoes; Senior—Apple, Pear and Potato Scabs; Grain Rusts and Smuts; Black Knot.

WINTER.

Animal Life

Summarizing, Classifying and Reading: General review of animals studied; their relation to man: simple classifications. Reading of animal books and discussions on them.

Plant Life

Weed and Weed Seeds: Special drills on weeds and weed seeds; discussions on methods of destroying them; exercises on detecting and identifying weed seeds in grain that is to be used in seeding.

Crop Improvement: Exercises in selecting seed grain; making comparative germination tests of large plump, small plump and shrivelled grains; consideration of the aims and plans of the Canadian Seed Growers' Association. Consideration of the results of the experiments in the testing of grain varieties at Experimental Farms.

General

Introduction to Elementary Science: e.g., Junior—Mineralogy, Chemistry, Bacteriology. Senior—Physics.

Junior.

Mineralogy: Observation, recognition, comparison and uses of local minerals and rocks.

Chemistry: Air:—1. To show its composition by burning sulphur or phosphorus (ends of sulphur matches) in a pickle bottle inverted over water.

2. To show its limitations in supporting combustion by burning wood splinters, wax tapers or candles, paper tapers, etc. in glass jars inverted over water.

3. To show the changes produced by respiration by blowing the breath into lime water through a glass tube or by comparing the action of the air of the school room on a dish of exposed lime water with the action of the air on a dish placed outdoors in the fresh air.

4. To show the reciprocal relations of plants and animals as regards the atmosphere by keeping animals alive in aquaria that are provided with growing green plants.

Bacteriology: To demonstrate the bacterial or spore impurities of air, water or dust, by showing the effect of exposing sterilized milk to the air of the schoolroom, dust from a floor or stable, or dirty water, and comparing it with sterilized milk that has been kept sealed.

Senior.

Physics: On forms of matter. To show the distinction between amorphous and crystalline by using common sugars for examples.

On solution. 1. To demonstrate the simpler phenomena of solution by comparing the amounts of sugar and salt that can be dissolved in water. 2. To demonstrate the simpler phenomena of diffusion by placing a piece of bluestone at the bottom of a glass jar filled with water and leaving it undisturbed.

On natural forces. *Gravity*. 1. To demonstrate the buoyant pressure of air by reference to the common pump or barometer. 2. To demonstrate the buoyant pressure of water by balancing two iron weights on a suspended rod and then allowing one weight to sink into water, or by finding the load that a floating cork can carry.

- On capillarity. To demonstrate the application of capillarity in lampwick, blotting paper and soil.
- On soils : To compare the temperatures of sandy and clayey soils when under similar conditions.
- On applied science : Consideration of industrial uses of heat, steam, gas and electricity.

SPRING.

Previous studies continued on : (1) Birds, (2) Insects, (3) Frogs, (4) Snakes, (5) Fish.

Animal Studies

- Aquaria* : Observation of movements, feeding, etc., of, e. g., Junior—Crayfish. Senior—Clams and Snails
- Insects, etc.* : Observation of work and habits of, e. g., Junior—Ants, Spiders. Senior—Honey Bee, Centipedes.

Plant Studies

- Previous studies continued on (1) Wild Flowers, (2) Fruits, (3) Farm and Garden Crops, (4) Trees.
- Plant Structures and their Functions* : Examination of a few plants noting the different parts and learning their functions, e. g., Junior—Tulip and Geranium. Senior—Apple Blossom and Clover or Pea.

Experimental

Junior.

The Plant in Relation to Soil : 1. To compare the growth of wheat in sand, clay, humus and mixed soils. 2. To demonstrate the value of mulching in class plot or home garden by comparing the growth of plants on one part of the plot that has been kept mulched with the growth on a part that has not been mulched at all.

The Plant in Relation to Air : 1. To show the advantage of a good air supply about the roots of plants by comparing the growth of two potted geraniums, one of which is kept very wet. Note the growth of crops in low lying land in wet seasons and account for changed appearance. 2. To measure the volume of air in different soils by displacing the air with water. e. g., by taking a quart measure full of soil and finding out how much water can be poured on without an overflow.

Senior.

The Plant in Relation to Water : 1. To estimate the amount of water absorbed by seeds in germination by weighing out a few ounces of beans or wheat, soaking them to a point of

germination, roughly drying and weighing again. 2. To demonstrate root hairs on seedlings by sprouting corn, wheat, onions, radish, etc., between damp blotting papers or in "Zurich Germinators." 3. To show that plant food is taken from the soil through the roots by growing seeds in two pots of clear pure sand and feeding the plants in one pot with small quantities of plant food, such as may be sold by seedsmen. 4. To show the path taken by water in its ascent through the plant by placing cut stems of carnations, balsams, etc., in water colored with red ink. 5. To estimate the amount of water transpired by a plant by wrapping oil cloth securely about a pot in which a thrifty and well watered plant is growing, so that no moisture can escape from the surface of the pot or the soil, and comparing its weight at the time of wrapping (morning) with the weight taken some hours afterwards (afternoon). 6. To estimate the amount of moisture lost by plants in the drying of hay by weighing a few pounds of the freshly cut grass and then taking the weight of it as dried hay.

Garden Work

1. Class Plot in school garden in Agriculture, e.g., Junior—To demonstrate the different kinds of wheats. Senior—To demonstrate the value of spraying potatoes. 2. Individual garden plots at home, growing one flower and one vegetable, e.g., Junior—Verbena and Onions. Senior—Asters and Sweet Corn. 3. Artificial propagation of plants, e.g., Junior—Grafting on apple trees. Senior—Budding. 4. Care of orchards.—Methods of pruning, cultivating, manuring, spraying.

MANNERS AND MORALS.

General Suggestions.

Method : Throughout the whole Public School course, the teacher shall aim to have the pupils practise those external forms of conduct which express a sense of the proprieties of life and the politeness which denotes a courteous respect for the needs and wishes of others. He shall also by his own influence and example, by the narration of suitable tales and fables that awaken right feeling, by the memorization of gems embodying noble sentiments, by the repetition of texts, maxims and proverbs containing rules of duty, by lessons drawn from current incidents, from Scripture readings, from literature and history and by direct instruction, seek to direct the attention of the pupils to the moral quality of their acts and to form in them habits of right conduct and courteous manners.

The following outline of Lessons in Manners and Morals is taken from White's School Management, (See pp. 218-294).

Each of the sub-topics below is designed for one or more lessons. The teacher should note incidents that form a good basis and select those topics which can be presented most successfully.

1. Cleanliness and Neatness.

- (a) Body, hands, face, hair, nails, etc.
- (b) Clothing, shoes.
- (c) Books, slates, desk, work, etc.
- (d) Everything used or done.

2. Politeness (children)

- (a) At school.
- (b) At home.
- (c) At the table.
- (d) To guests or visitors.
- (e) On the street.
- (f) In company.

3. Gentleness.

- (a) In speech.
- (b) In manner.
- (c) Rude and boisterous conduct to be avoided.
- (d) Patient, when misjudged.
- (e) Docility, when instructed.

4. Kindness to others.

- (a) To parents.
- (b) To brothers and sisters.
- (c) To other members of the family and friends.
- (d) To the aged and infirm.
- (e) To the unfortunate.
- (f) To the helpless and needy.
- (g) The Golden Rule.

5. Kindness to Animals.

- (a) To those that serve us.
- (b) To those that harm us—the killing of birds.
- (c) The killing of those that do us harm.
- (d) The killing of animals for food.
- (e) Cruelty to any animal, wrong.

6. Love.

- (a) For parents.
- (b) For brothers and sisters.
- (c) For other members of the family and friends.
- (d) For teachers and all benefactors.
- (e) For neighbor.
- (f) For God.

7. Truthfulness.

- (a) In words and actions—"Without truth there can be no other virtue."
- (b) Keeping one's word—promises to do wrong.
- (c) Distinction between a lie and an untruth.
- (d) Telling what one does not know to be true.
- (e) Prevarication and exaggeration.
- (f) The giving of a wrong impression, a form of falsehood.
- (g) Telling falsehoods for fun.

8. Fidelity to duty.

- (a) To parents—to assist, comfort, etc.,
- (b) To brothers and sisters—older to assist, etc., the young.
- (c) To the poor and unfortunate.
- (d) To the wrong and oppressed.
- (e) Duty to God.

9. Obedience.

- (a) To parents.
- (b) To teachers and others in authority.
- (c) To law.
- (d) To conscience.
- (e) To God.

10. Nobility.

- (a) Manliness.
- (b) Magnanimity and generosity.
- (c) Self-denial and self-sacrifice for others.
- (d) Bravery in helping or saving others.
- (e) Confession of injury done another.

11. Respect and Reverence.

- (a) For parents.
- (b) For teachers.
- (c) For the aged.
- (d) For those who have done distinguished service.
- (e) For those in civil authority.

12. Gratitude and Thankfulness.

- (a) To parents.
- (b) To all benefactors.
- (c) To God as the giver of all good.

13. Forgiveness.

- (a) Of those who confess their faults.
- (b) Of those who have wronged us.
- (c) Of our enemies.
- (d) Generosity in dealing with the faults of others.

14. Confession.

- (a) Of wrong done another, manly and noble.
- (b) Denial of faults, "The denial of a fault doubles it."
- (c) Frankness and candor.

15. Honesty.

- (a) In keeping one's word.
- (b) In school and out of school.
- (c) In little things.
- (d) Cheating, ignoble and base.
- (e) "Honesty is the best policy."
- (f) Honesty is right.

16. Honor.

- (a) To honor one's self, i.e., to be worthy of honor.
- (b) To honor one's family.
- (c) To honor one's friends.
- (d) To honor one's home.
- (e) To honor one's country.

17. Courage

- (a) True courage—daring to do right and to defend the right.
- (b) False—daring to do or defend the wrong.
- (c) In bearing unjust censure or unpopularity.
- (d) In danger or misfortune.
- (e) Heroism.

18. Humility.

- (a) True greatness—not blind to one's own faults.
- (b) Modesty—becoming to the young.
- (c) Avoidance of pride and vanity.
- (d) Self-conceit, a sign of self-deception.
- (e) True humility, not servility or true serving.

19. Self-Respect.

- (a) Not self-conceit—based on conscious moral worth.
- (b) Not self-admiration.
- (c) Resulting in personal dignity.
- (d) Distinction between self-love and selfishness.
- (e) "Be not wise in your own conceit."

20. Self-Control.

- (a) Control of temper.
- (b) Anger, when right.
- (c) Avoidance of hasty words,—think twice before you speak.
- (d) Self-restraint when tempted.
- (e) Self-restraint under provocation,—bear and forbear.
- (f) Rule your own spirit.

21. Prudence.

- (a) In speech and action.
- (b) When one may be misunderstood.
- (c) Respect for the opinion of others.
- (d) "Judge not that ye be not judged."

22. Good Name.

- (a) Gaining a good name when young.
- (b) Keeping a good name.
- (c) Keeping good company.
- (d) Reputation and character.

23. Good Manners (youth).

- (a) At home.
- (b) At school.
- (c) In company.
- (d) When a visitor or a guest.
- (e) In public assemblies.
- (f) Salutations on the street.
- (g) Politeness to strangers.
- (h) Trifling is serious matters to be avoided.

24. Health.

- (a) Duty to preserve health.
- (b) Habits that impair health, foolish as well as sinful.
- (c) The sowing of "wild oats"—"What a man sows, that shall he also reap."
- (d) The body never forgets nor forgives its abuse.
- (e) An observance of the laws of health a duty.

25. Temperance.

- (a) Moderation in indulgence of appetite in things not harmful.
- (b) Total abstinence from that which is injurious.
- (c) Dangers in the use of alcoholic liquors.
- (d) Courage to resist social temptations to indulgence.
- (e) Injurious effects of tobacco on growing boys.
- (f) Cigarette smoking by boys a serious evil.

26. Evil Habits.

- (a) Those that injure health.
- (b) That destroy reputation.
- (c) That dishonor one's self and family.
- (d) That waste money.
- (e) That take away self-control.
- (f) That are offensive to others.

27. Bad Language.

- (a) Profanity, foolish and wicked.
- (b) Obscenity, base and offensive.
- (c) Defiling books or other things with obscene words and characters a gross offence.
- (d) The use of slang, vulgar and impolite.

28. Evil Speaking.

- (a) Slander a serious offence.
- (b) Tale bearing to injure another.
- (c) Repeating evil which one has heard without knowing it is true.
- (d) Thou shalt not bear false witness against thy neighbor.

29. Industry.

- (a) Labor a duty and a privilege.
- (b) Right use of time.
- (c) Manual labor honorable.
- (d) Self-support gives manly independence.
- (e) Avoidance of unnecessary debt.
- (f) When begging is right.
- (g) An opportunity to earn a living by labor due every one.

30. Economy.

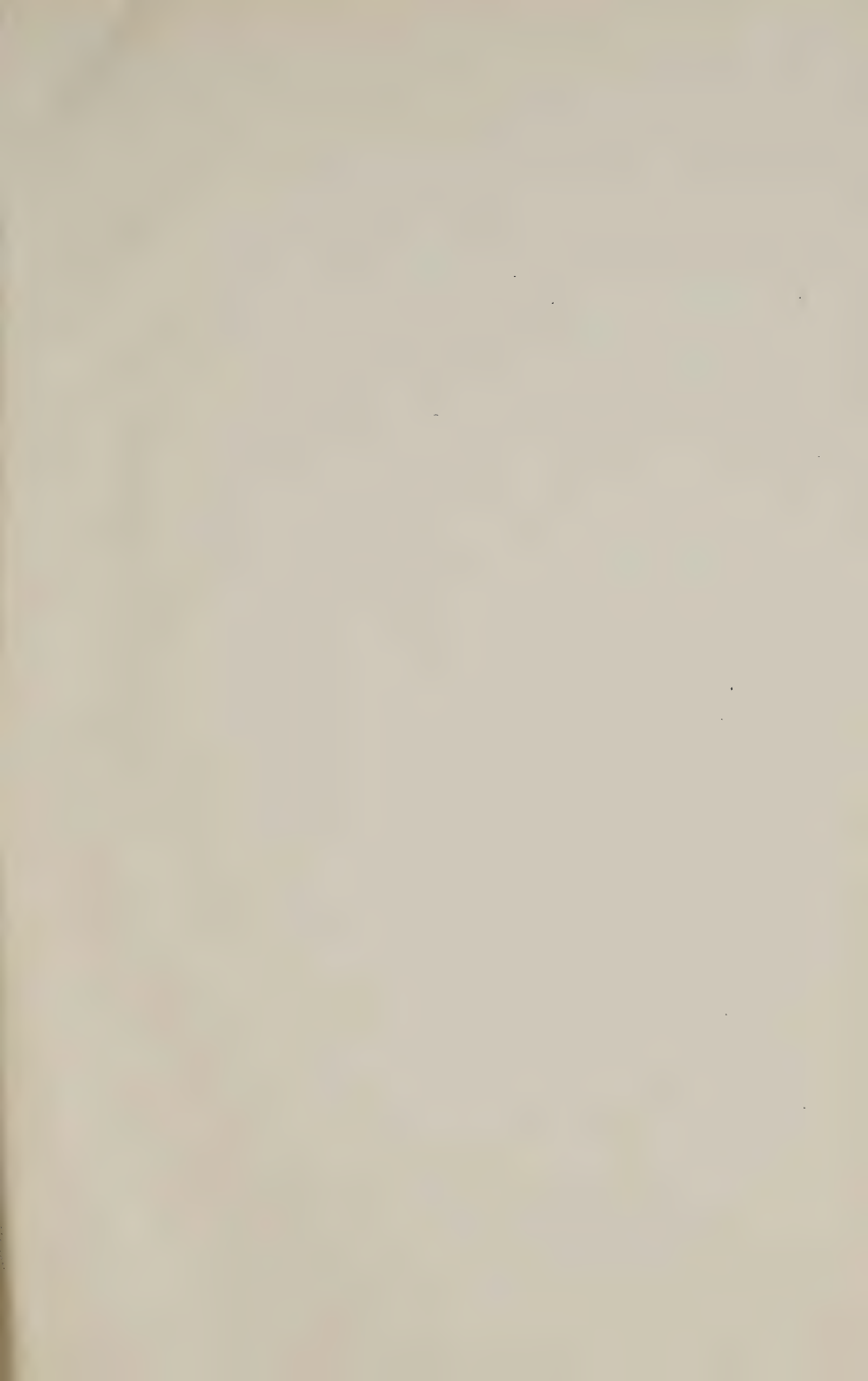
- (a) Saving in early life means competency and comfort in old age.
- (b) Duty to save a part of one's earnings—"Lay up something for a rainy day."
- (c) Extravagance wrong—"A spendthrift in youth, a poor man in old age."
- (d) The hoarding of money needed for comfort, or culture or charity, wrong.
- (e) Charity—"No man liveth unto himself."

31. Patriotism.

- (a) Love of country.
- (b) Reverence for its flag.
- (c) Respect for its rulers.
- (d) Its defence when necessary.
- (e) Regard for its honor and good name.

32. Civil Duties.

- (a) Obedience to law.
- (b) Fidelity in office—bribery.
- (c) Honor in taking an oath—perjury.
- (d) Duty involved in the ballot—buying or selling votes.
- (e) Dignity and honor of citizenship, etc.





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East, Toronto, should be communicated with, regarding
Examination Papers, as any that are available are for sale
by that firm.*

*A. H. U. COLQUHOUN,
Deputy Minister of Education.*

SUGGESTIONS
TO
High School Principals
and their Staffs

In connection with
The New Programme of Studies



TORONTO
Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty
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PREPARATORY NOTE.

During the past year my correspondence and other inspectorial duties were so burdensome in connection with the introduction of the new programme of studies that, to economize time, I now put in the form of a circular my views on some important questions, most of which are continually coming up for discussion.

JOHN SEATH.

86 Walmer Road,
August 26th, 1905.

SUGGESTIONS TO HIGH SCHOOL PRINCIPALS AND THEIR STAFFS IN CONNECTION WITH THE NEW PROGRAMME OF STUDIES.

ORGANIZATION.

The Departmental Memorandum of August, 1905 (circular 50), draws attention to the requirements of the regulations which were approved in August, 1904. So far as concerns the Junior and the District Teachers' Non-professional Examinations, the regulations as to standard and subjects [Reg. 43 (3), 46 and 48] will come into full force at the examinations of 1906, except, as stated in the circular, in the case of the Geometry for the Junior and of Part I. for each of these examinations. In organizing for the coming year it is, therefore, important for the Principal to realize that the standard has been raised, and that the course is now a fixed one, with a Latin bonus at the Junior. The District, Junior, and Senior Teachers' Examinations are now held, be it noted, solely to ascertain the qualifications of the candidates for a teacher's certificate, although, of course, they may be used as Leaving Examinations also; and it is not unreasonable to anticipate that, in settling the results, the interests of the Public Schools will hereafter be solely considered. It is an open secret that, while the system of Leaving Examinations was in operation, allowances were made which would be unjustifiable under present conditions, and which have injured the cause of popular education in the Province.

The Principal's certificate referred to in Circular 50 is defined by the last sentence of Reg. 50 (3). It should, cover the Lower School courses in Book-keeping, Reading, Physics, and Chemistry, with at least one year's course in each of Art, Botany, and Zoology. As the regulations show, the one year's course in Art is for a whole school year, while the one year's course in each of Botany and Zoology is from September to November, and from April to the end of June. The details of such courses are at the discretion of the Principal, who will no doubt take into consideration the requirements of the future Public School Teacher. In the case of all candidates (including those who failed this summer) whose course has not yet covered all the subjects, the Principal might allow such pupils to go down to one of the Lower School classes when the subjects are being taken up. The same plan may, of course, be followed hereafter in the case of pupils who are fit for the Middle School but who do not possess the required certificate as to competency in the subjects of Part I. The resulting interference with their Middle School time-table is one for which the candidates, not the Principal, are responsible, and the interests of the Middle School must not be allowed to suffer. For very evident reasons, however, such permission should be given only in exceptional cases.

In some quarters the object and the scope of Reg. 39 (9) have not been appreciated. The object, it is understood, was to enable the Principal to resist more easily the pressure that would in many cases be brought to bear upon him to continue in a congested Middle School time-table subjects and stages of subjects which properly belong to the Lower School. As to scope: Under the regulations, the Geography for the intending Public School Teacher, and the Arithmetic and Mensuration and the English Grammar for other classes of candidates may, where needed, be reviewed after March. A teacher's special course is provided in Arithmetic and Mensuration, and in English Grammar (See pp. 79 and 80*), which the Principal may have in the Middle School as often as he deems it expedient. And, further, unless the parent or guardian objects, the Principal may require other pupils to take these special courses. In view, however, of the ample Lower School provision in these subjects, the extremely moderate requirements of University Matriculation, and, usually, the superior claims of other subjects of the course, it would be wise for the Principal to restrict this special teacher's course to the intending teacher.

But these difficulties of organization are small compared with those which have hitherto confronted the Principal—the pressure of the Departmental and the University examinations with its train of evils; the unreasonable demands of department teachers; the inadequacy of staffs, due to congested attendance and the plethora of courses undertaken; and, lastly, the defective preparation of Entrance and Continuation Classes, the former being sometimes due to laxity at the examinations, and the latter, to the inconsiderate ambition of badly equipped and badly manned Public Schools. These are, undoubtedly, real difficulties; but nearly all of them may be gradually overcome by due liberality on the part of School Boards and, more particularly, by firm and judicious management on the part of Principals themselves. Like the wagoner in the fable, the local authorities must put their own shoulders to the wheel. The relation of the different grades of Continuation Classes to the High Schools requires, it is true, a better adjustment. Until this is made, concerted action on the part of all the Principals in a district, with the co-operation of the Public School Inspector, if that can be secured, should do much to simplify the situation.

In the above enumeration of the Principal's difficulties, the so-called "multiplicity of subjects" has not been included. Experience will, undoubtedly necessitate amendments in the regulations, and the progress of the Public and Model Schools will, in time, relieve the High Schools of responsibilities which are now forced upon them. But, having regard to our present obligations, the new programme will compare favorably in its limitations with that of any other progressive country. There is no subject upon it which could be safely omitted from a well rounded modern scheme of secondary education, or upon the omission of which even a majority of competent educationists would agree. It must be remembered also that, like the Public School programme, the High School one was made to last for a period of years, and that, accordingly, in some of its details, it assumes a condition of the general system which it will take time to produce. "The house that is a-building is not as the house that is built." Moreover, the general advancement of education in this Province cannot be kept back in order that weak but ambitious

*Except where otherwise stated, the pages throughout are those of the new regulations.

schools, whether High Schools or Continuation Classes, may attempt courses beyond their capacity. What is at fault is, not so much the number of subjects on the official programme, as the plethora of courses on many local ones, and a generally defective system for organization. For the former, the locality is itself to blame. The latter is the direct result of examination pressure; for, in most schools at present, all the subjects of a Form are taken up concurrently, with an apportionment of time determined mainly by their difficulty and their examination importance. Such a system of organization is both unnatural and unnecessary—unnatural because no one but a prodigy would adopt it in private study, and unnecessary, because, even under present conditions, better results can be secured in a saner way.

Experience in Ontario, not to speak of the general experience of other countries, has shown that better results would be secured if the following principles were kept in view:

(1) Not all the subjects prescribed for a form should be taken up concurrently. Subjects and stages of subjects that involve chiefly the memory or mechanical accuracy cannot, of course, be so readily intermitted as those that involve the reasoning powers; but even here this principle is, in many cases, measurably applicable.

(2) The stress upon a subject should vary according to its character in the different stages of its development and to the pupil's advancement in it and the other subjects of the course.

At present the pupil's energies are dissipated among too many subjects and he is dazed by the monotonous grind at the same subject year in and year out. Arithmetic, for example, he has uninterruptedly for nine or ten years. Concentration of energy and variety of subject matter would be of inestimable advantage to him in the natural and pleasurable development of his powers. The qualifications of the staff and the structural difficulties of the time-table will, no doubt, often prove a bar to the systematic application of these two principles; but, as most teachers take more than one subject of a department, it should not be difficult at least to improve the general situation.

(3) Care should be taken to cultivate greater independence on the part of the pupil. It is no secret that, at present, there is altogether too much teaching, especially in the classes preparing for examination. With a better standard this fact would demonstrate itself every mid-summer. The teacher should, accordingly, exercise greater self-restraint; and, in particular, study periods should be provided in all the forms. For such pupils in the larger schools, a separate room might also be provided under charge of one of the staff. It will take time for both staff and pupils to become used to such a system, but the training the pupils will thus receive in self-reliance should amply compensate the staff for the additional trouble it may involve*.

* Owing to misapprehension of Reg. 39 (9) in a certain High School, neither the Arithmetic nor the English Grammar was taken up this year in the Middle School until after March. Notwithstanding this, all the candidates at the Junior passed, and passed well, in these subjects. The work had been well done in the Lower School, and was stressed after March. The bearing of this statement and of those below (quoted from letters to me) will prove at least suggestive, in view of the present difficulties of organization. The four Principals concerned are both experienced and successful teachers.

(1) "In Form I, I have never had Euclid. In Form II, I have had two periods. So many leave at the end of one or two years, and so many are quite young, and incapable of connected reasoning, that I do not settle down to a serious study of the subject until the beginning of the third year. The classes then thoroughly enjoy the subject, and make very rapid progress. From the examination standpoint the results are satisfactory, the failures falling short of one a year for the past ten years. In Forms III, and IV, I have three 30-minute periods each a week. In Arithmetic I have three periods of 30 minutes a week in each of three Forms I., II., and III. Much time is spent in grading the work for each year, the first two years being devoted to a thorough course in Commercial Arithmetic and Elementary Mensuration,

The following notes show in a general way how these principles may be applied :

English Grammar should not be stressed at first. It will be enough if, at the end of the first year, the pupil knows well and has perhaps slightly amplified the course now prescribed for the Fourth Form of the Public Schools. (See definition and note on p. 59). On account of its use in connection with the other languages and with English Composition, English Grammar should be taken up as soon as the pupil enters, but it need not be continued throughout the whole first year. After the first year, the subject might be gradually stressed as the pupil's reasoning powers develop, and the serious difficulties should be reserved for the greater maturity of the special Middle School course. (See p. 80 and p. 65, note). English Composition should be stressed throughout the Lower School especially in the first year, being closely connected with the practical side of English Grammar. The subject should also receive systematic attention in the oral and written work of the other classes. (See pp. 66, 68, 69 and 70). English Literature should be stressed throughout the Lower School also during the first year. The pupil usually needs to be trained to read intelligently. This habit the reading courses of the old Public School programme did not inculcate. The fault is remedied in the new one, but it will take time to work the cure. (See pp. 66, 69 and 70).

with systematic drill in work planned to secure accuracy in the mechanical operations. This latter feature I consider the most important in the two years' work, since annual experiments bring out the fact that not 5 per cent. of the Entrance Class can work ordinary examples in the four simple rules either rapidly or accurately. Taking one year with another, perhaps 5 per cent. of the candidates, chiefly girls, fail in Arithmetic.

"In Algebra I have one 30-minute lesson a week in Form I., three in Form II., and four each in Forms III. and IV. This, I think, is sufficient, except possibly with Form IV. There are practically no failures in Form III. Algebra; but perhaps 10 per cent. fail in the Senior Algebra (I do not mean 10 per cent. of those recommended, but 10 per cent. of all who write).

"I feel quite satisfied that with students of High School ages much time is lost by treating a part of a subject exhaustively, and then giving it little further attention. Frequent reviews, with gradually increasing emphasis on the difficulties, leave the Students encouraged, hopeful, aggressive, and prepared.

"I do not intend to change the number of periods in Mathematics in the Lower School.

"I may add that in Junior Forms, corresponding to Lower School Classes, I exact very little home work. I have an understanding with these classes that, if they enter into the regular class work with the same spirit, earnestness, and vim as they would on a base-ball field or a tennis-court, the home-work exacted will be merely nominal. Last year with the Form just below the Junior Teachers and Junior Matric. I tried this throughout the year, and secured the best results I ever had. In Algebra we covered the work to the end of quadratics; in Euclid, Books I. and II. with easy deductions; and in Arithmetic the full course outlined for Junior Teachers; and I think the average of the class for home-work for the three subjects combined did not exceed half an hour daily. Of course, in Junior Teachers' work much more time is necessary."

(2) "During the past two years I took Middle School Geometry five spaces per week (35 minutes) for the first five months of each year; then Arithmetic in these same five spaces on the time-table for the next four months; and in the last month I reviewed both Arithmetic and Geometry. I feel confident that the success of the class has been greater by taking these subjects intermittently than concurrently.

"Our time-table (1904-1905) was constructed with five spaces (33 minutes) in the forenoon. After three months I cancelled all the subjects in the first space on the time-table, and divided the forenoon equally amongst the remaining four spaces, and continued this for one week. The following week I cancelled all the subjects in the second place on the time-table, and divided the forenoon equally among the remaining four spaces. Then I cancelled the subjects in the third, fourth, and fifth spaces in the same way, and began again with the first. This increased the morning spaces from 33 minutes each to 45, 40, 40, and 40 minutes, at the small cost of giving some subjects a week's rest. About April 1st I resumed the 33 minute spaces, because the work had all been covered, and the shorter spaces served as well for review."

(3) "Our General School is organized into five Forms, with sub-divisions, the Fourth Form containing the candidates for the Junior. For two or three years we have tried the plan of intermitting for a time some of the subjects. We take History during the first year, and then drop it until the Fourth Form is reached. Drawing is taken every day the first year, and afterwards only advanced work for those needing it. Geography is taken in the second year only, and every day. Geometry is begun in the second year, after the Geometrical Drawing of the first year. Book-keeping and Commercial Transactions is taken in the second year only. No formal Literature is taken the first year; Supplementary Reading is emphasized. German is begun in the Third Form. We have no Greek.

"We made these arrangements to try to relieve the pressure and consequent dispersions resulting from the multiplicity of subjects in each year, and we would not voluntarily go back to the usual arrangement of all the subjects all the years. Two hundred lessons in a subject in one year is much better than the same number of lessons spread over two or three years.

"I should like to carry our plan of intensive study with intermissions further still, and I hope to be able to overcome the difficulties in the way.

"With us, Continuation Pupils coming in without proper preparation must go back to their proper level in the unprepared subjects."

History is largely a memory subject, at first. The essential facts, therefore, should be acquired when the memory is plastic. Even in the Lower School, however, it will serve a good purpose to vary the stress, and even to intermit the subject. But History lends itself better to the latter mode of treatment in the later years when the pupil is able to appreciate the logical sequence of events and to work with greater independence. In the Upper School, indeed, the teacher's guidance is needed more than direct teaching; for, there is hardly any other subject in which, at this stage, the pupil can do more for himself (See pp. 66, 69 and 71). The distinguishing feature of the High School course in Geography should be the prominence given to its Physical side. Accordingly, the work for the first year should consist of an elementary course in the Commercial and Astronomical subjects, without burdensome details, and a mere introduction to the more difficult subject of Physical Geography. If taken throughout the whole year, this course should not consume more than a couple of periods a week, and should stress the Commercial and Astronomical parts more than the Physical. The second year's work, however, should be a stressed one in Physical Geography, introducing the present authorized High School text-book and reserving the more difficult portions to be taken up with the review after March in the Middle School. (See pp. 67, 81 and 82.)

As to Mathematics: Reference to pp. 66, 79 and 80 will show that the prescribed development of the course in Arithmetic is different from that in vogue under the old regulations. The change has been made, not only to meet the necessities of pupils in the general course, but to improve the department of Mathematics itself by securing due economy of effort. All classes of pupils now take together the Lower School Arithmetic, in which "the processes and problems in the commercial work are such as find direct application in ordinary business life, in which accuracy, rapidity, and neatness of work are aimed at, and in which proofs of the more difficult formulæ in Mensuration are not required." (See p. 66.) The serious difficulties of the subject need not be taken up with the pupil in the general course at any stage. Provision is made for their consideration in the special teacher's course in the Middle School. The great defect of the teaching in both English Grammar and Arithmetic has, in many cases, been the unreasonable difficulties of the work of the earlier years—difficulties which can be overcome with far less effort at a later stage. Moreover, it must be borne in mind that our programme consists of courses of study, not of a collection of isolated subjects; and that the power a pupil gains in the study of each is available throughout, especially in the study of those that are correlated with it. From the conditions, Arithmetic should be stressed for the greater part of the first year, Algebra being then taken for about a couple of periods a week and being thereafter the subject that is stressed. If, indeed, the Middle School course is a two years' one, as it is in some schools, both the Arithmetic and the English Grammar of the special course may be intermitted for the whole or the greater part of the first of these years. Hitherto, under the old programme, Geometry has often been omitted until the second year or taken up after Christmas or Easter of the first. Owing to its character, the Practical Geometry might be taken up hereafter towards the end of the first year (See "Art Course" further on), and the rest of the course should certainly not be stressed until the Middle School.

The languages involve so much memory work of an unfamiliar character that they must be stressed throughout, although, naturally, there will be varying stress and even intermittence in the components of the course in a particular language. As we are now situated, only Latin should be taken up at first, a short lesson a day being provided, if at all practicable. Oral work in French for a couple of periods a week should be provided as soon as the pupil has mastered the initial difficulties of Latin, the subject being stressed the second year and thereafter. At present, in the smaller schools, French is often not taken up until the second year, but it is then stressed from the first. Under ordinary conditions, German and Greek will begin the second year, being also stressed from the first, although, of course, the size of the class may justify a reduction in the normal number of class-periods. Time is an essential element of language culture, and, very generally, too little time is spent on the languages. But, until the character of the University examination scheme changes, improvement can hardly be expected.

Further on, the Elementary Science and the Art and the Commercial courses are dealt with at greater length. It should be noted here, however, that the principles of intermittence and varying stress have been observed as far as practicable in the construction of the course in Elementary Science. Their application in the case of the other Science subjects is of at least as much importance as in the case of any of the subjects already dealt with.

The minimum time for Reading and for Physical Culture is prescribed. These, be it noted, are non-examination subjects. Before the regulation was made, little or no attention was given them, and occasionally still the minimum is reluctantly provided even where the conditions demand a greater apportionment of time. The Regulation in regard to Reading, in particular, seems, it is true, to bear hard upon those schools, the lower forms of which are both numerous and congested. The proper remedy, however, is an obvious one. Moreover, it must be borne in mind that Reading, to some extent, and Physical Culture, to a large extent, are motor exercises, and require special attention in the earlier years. Elementary Science also belongs to the category of examination subjects, and has, accordingly, a minimum prescribed. In the case of Art and of Book-keeping, also non-examination subjects, the work done is submitted for inspection.

In some schools the following provisions are made; they have a direct bearing on the question of organization and deserve to be generally adopted:

(1) Each July or August a prospectus of the school is issued, containing full information for parents and the general public as to the constitution of the staff, the subjects of the courses, the text-books therefor, and the examination requirements, with the general and local regulations in which the locality is interested. Not only does this save correspondence but it educates the public in some matters with which, to the disadvantage of the High School, many are now but poorly acquainted. When the Board is unwise enough to object to the expense, the local papers are usually found ready to lend the school the use of their columns.

(2) A circular letter of questions to parents is given each pupil when he enters the school. The answers contain all the information needed for the school register, with details as to the course of study

selected and a statement of any special considerations that should affect the treatment of the pupil. If, as often happens, the parent has as yet no settled intentions, the answers show, in particular, how long the pupil is likely to remain at school, and transfer to the Principal the right to determine his course in the meantime. After the first year the problem can usually be solved.

(3) Teachers' meetings should be held regularly. On this subject it is unnecessary to enlarge. At such meetings the Principal correlates as far as possible, the work of the different departments; and, in particular, he takes measures to prevent over-pressure of work—an evil which is, unfortunately, too general and for which the staff, not the system, is responsible. From time to time, the Principal also ascertains directly for himself the condition of the subjects in the different forms. One of his most important duties is to hold the balance amongst the different departments and to restrain the inconsiderate zeal of some of his assistants.

SUPPLEMENTARY READING.

For many years, provision has been made for Supplementary Reading in English Literature, to extend the course in the prescribed texts, which is too narrow for culture and which, moreover, is often injured by examination considerations. The new regulations recognize two kinds of work in English Literature—the *class* work and the *supplementary* work. At present, no special texts are prescribed for the Lower School, except, of course, in the few schools which take up the work for District certificates. In the Lower Schools, accordingly, the class-work is to be selected by the Principal; in the Middle and Upper Schools, it is practically prescribed by the examinations; and the supplementary work throughout the schools is at the discretion of the Principal. If the selections have been properly made, the class literature will be of a more difficult character than the supplementary literature; for, as a whole, the former is to be studied under the immediate care of the teacher. The supplementary literature, on the other hand, should, also as a whole, be read at home or as seat-work, and should, accordingly, be so graded in the different forms as to maintain the pupil's interest throughout his course.

Attention should be paid to the important notes to the definition and the development of the subject of English Literature on pp. 66, 69, 70, and 71 of the new regulations. Two points in note 2, p. 66, in regard to the Lower School course are especially important:

(1) "In each of the Forms, three or four books (both prose and poetry) should be read each year as Class-work. Part of such books should be read at home or during study periods, and reviewed in class with special reference to the more difficult passages."

Under this clause, the course might consist, for example, of *Ivanhoe* and *The Lady of the Lake* (or *Evangeline*), followed, if practicable, by *The Merchant of Venice*; and in the second year, of *Silas Marner*, and a couple of the *Idylls*, followed, also if practicable, by *Julius Caesar*.

To some, such a course may appear to be too extensive. It has not, however, proved to be so when a rational plan has been followed. We should be satisfied if the pupil understands the meaning of what he reads. With a sympathetic and cultured teacher, the author may be trusted to do the rest. In the first year, the course would naturally begin with the

prose. It should be taken up wholly in the class until the pupil is in a fair way to acquiring the habit of reading with the understanding. Then, still under the direct guidance of the teacher, part might be read at home or as seat-work, the pupil's difficulties and such others as the teacher thinks deserving of attention being carefully considered in the subsequent class-work. There are not more important exercises, it may be added, in this connection than the systematic oral and written reproduction of what has been studied. In dealing with words, sentences and passages, the pupil is apt to overlook their bearing upon the context. As mental discipline, too, the exercises are of great value.

(2) "It is further recommended that at the beginning of each school year a short list be made out for each Form, under a few heads, of such suitable works as may be obtained in the School, Public or other library, and that each pupil be required to read during the year at least one under each head, in addition to those taken up in class."

Here we have the provision for Supplementary Reading, the course in which might be introduced in the first year, as soon as the pupil has become accustomed to High School methods. Speaking generally, the Supplementary Reading should be home or seat work, the pupil's difficulties being dealt with systematically in class, as in the case of Class literature. Oral and written compositions might be based occasionally upon the Supplementary Reading also; but care should be taken not to make a task out of a course the object of which is the creation of a taste.

The books for the Class literature in the Middle and Upper Schools are purchased by the pupils. They should be purchased by the pupils of the Lower School also; excellent editions are to be had at from 10c. to 25c. each. (See Catalogue of 1902 and the Supplement of 1905). In some localities, the possession of the books is of advantage, not only to the pupils, but to a wider circle of readers.

Reference to the new programme will show that Supplementary Reading is enjoined in Geography, History, and Science, as well as in English Literature. To meet the difficulty of providing a sufficient supply of books, the following plan has been followed in a number of schools, with most satisfactory results. Before each session, the members of the staff, with the catalogues of the Public and other local libraries (including, of course, the High School library) before them, select therefrom a dozen or more suitable books for each Form under each of the following heads, the lists indicating where each book is to be found, and each pupil being required to read, during the ensuing school year, at least one from each list for his Form:

I. Prose Fiction; II. Narrative and Dramatic Poetry; III. Biography and History; IV. Travels and Explorations; V. Popular Science.

Modifications of such a plan may, of course, be desirable. As the pupil's taste develops, essays, etc., may be substituted for prose fiction, and poetry of a subjective character may be added. Good translations of the Ancient and Modern Classics and other works likely to create a taste for the languages and their literatures, should also have a place, and it should be the duty of each teacher concerned to see that the interests of his department are not neglected. The lists should be printed on slips, or inserted in the annual circular of the school, or, at least, be kept on the Form bulletin board. And further, when com-

mending its list to a Form, the teachers should make such a statement in regard to the general character of each book as will enable the pupil to make an agreeable selection.

When the Public Library is not free, special arrangements may usually be made with its Board to supply the schools; and, for evident reasons, it would be to the interest of the locality to have at least the Principal appointed one of the members. Occasionally a public-spirited citizen has paid for the Library privileges enjoyed by the High School. In one or two localities already, as is now customary in the United States, the Library Board sends the necessary books in relays to the High School, and keeps its necessities in mind when making its purchases. From time to time, also, sets of half a dozen or so copies of suitable books should be added to the High School library, especially in the larger and wealthier localities, and where the supply from the Public Library is defective; for it is always better, if at all practicable, to have the books directly under the teacher's control. Under this system of Supplementary Reading, the provisions of Reg. 43 (2), (g), may readily be complied with. The pupil should be allowed to select the four works he will read; and if the tone of the school is what it should be, few precautions will be necessary to enable the Principal to give the necessary certificate to those who are candidates at a departmental examination.

Two other most important matters, here and there, still need attention. Especially in the Lower School, where the memory is plastic and the examination pressure is less in evidence, the pupil should be systematically required to memorize and to recite appreciatively choice selections in prose and poetry. The selections should invariably be well worth storing in the treasure-house of the memory; but no more than a fair share of the pupil's energies should be expended on this part of the course. Oral reading has, also, for many years, been a prescribed function of the course in English Literature. It is not necessary, be it noted, to have all the text read aloud; but it is necessary that what is read should be well read.

ELEMENTARY SCIENCE.

Many of the objections urged against the Elementary Science course are due to inappreciation of present educational conditions, and a misapprehension of its intended character. The Nature Study of the Public Schools, the Elementary Science of the Lower School, and the Science of the Middle and Upper Schools are, it must be remembered, continuous courses. The Elementary Science course, accordingly, assumes, as it now stands, that the Nature Study course has been carried out; and, until it is, the former must be of a lower grade than it should be some years hence. It must also be remembered that, even when fully developed, the course will still be an elementary one. Some of the topics demand but a brief treatment; and the stress upon each of the others should be determined, in each school, by the mental disposition of the pupils, the material available, and the prevailing industries of the district, conjoined with the consideration that the course is a two years' one.

The notes to "Elementary Science," on pp. 67-68 of the Regulations, now quoted, in view of their bearing on what follows, give a concise but comprehensive outline of the general character of the work to be done:

"The objects of the course are to train pupils in correct observation and deduction, to give, in connection with the instruction in Geography, a fair knowledge of the world around them to those who will not remain at school more than a few years, and to lay the foundation for the more detailed study of each subject in the case of those who will continue the work into the higher forms. The spirit of the Nature Study of the Public Schools should be retained, but the teacher should introduce a more systematic treatment of the subject, with such organization of the material as will lead to simple classification and generalization. The course should be correlated with Geography, Drawing, and Composition.

Under each of the subheads in Appendix B, full details are given of the course, which is intended to be at least a two years' one. The order of the topics, however is merely a suggested one. In Botany and Zoology, the extent and the character of the details are left to the principal and the teacher, and should be determined by the accessibility of the material and other local conditions. The courses in these subjects shall be practical throughout. Less attention should be given to the identification of plants than has hitherto been usual, and more to morphology, physiology, and ecology. When desirable, the agricultural applications of the subject should be emphasized. Each pupil should possess a good lens, and be taught how to use it. The compound microscope should be used regularly by the teacher for illustration. Approved methods of collecting and preserving botanical specimens and of keeping live animals suitable for study should be systematically followed. Much of the practical work, especially the observations, will necessarily be done out of doors by the pupils alone, under the direction of the teacher, or by the pupils conducted by the teacher. The courses in Physics and Chemistry shall be as far as possible experimental, and the pupils should be encouraged to work at home and to prepare simple apparatus.

When practicable there should be an Aquarium, and every school should have an Arboretum and a Herbarium. A Museum consisting of specimens illustrative of the courses should also be established. The pupils should be encouraged to provide specimens from the locality.

Floras and Faunas should be provided in the library; also other works of reference, and the pupils should be encouraged to use them as supplementary reading, never as text-books or as substitutes for original work. Drawing and systematic written description should be required throughout the course, and the specimens should be dated and preserved in note books for comparison and inspection, the work being systematically supervised by the teacher. In none of the Science classes shall notes be dictated by the teacher. Every pupil should keep a calendar of the dates of the unfolding of buds, the flowering of plants, and the first appearance of birds, insects, and other animals."

Culture is the great object of both the High and the Public School course. Both method and matter are important; but the method is always the more important. In the High School, however, the matter is more important and the course itself is less elastic, than in the Nature Study of the Public Schools; for the necessities of the future citizen and of the Public School teacher must now be borne in mind. The Chemistry, be it noted, is an unsystematized introduction to the subject, with a minimum of theory; the Biology, a more comprehensive course, is also unsystematized, with, however, provision for an organized view at the close; and the Physics, like the Science of the Middle and Upper Schools, is fairly systematized.

For evident reasons, it is intended that, as a general rule, the time from September to November and from April till the end of June shall be devoted to Biology. The apportionment of time to each of Botany and Zoology, should, on the whole, be about the same; but from week to week it will depend chiefly upon the material available. No time is fixed for Chemistry. Its logical place, however, would be during March, and, if necessary, part of February, at the close of the second year's course in Physics, to which, naturally, the winter months would be devoted. In schools where many pupils leave at the end of the first year, it would be wise to take the Chemistry to suit this condition; for, while the course is an introduction to the Middle School Chemistry, it deals with some common subjects of general interest and importance. In this case the subject should be reviewed at the end of the second year.

It is not intended that the topics of the Elementary Science course should be rigidly exclusive of one another, or be taken up in the exact order in which they appear on the programme. It often happens that facts in regard to more than one topic may be learned from the study of the same object. Questions in Physics and Chemistry often come up in connection with Biology; and, during the courses in Physics and Chemistry, material in Biology is often developed in the laboratory. From time to time also, suitable material, available for various purposes, is brought in by the pupils or gathered during the excursions. Such material should be dealt with at the time; but, when the work is reviewed, it is more systematic, and it will be found more convenient, to do so by topics. In any case, the broad, general principles are to be developed, and the teacher should select and arrange the details accordingly. To the pupil this course may, for some time, appear to be an unorganized one. It should never be so to the teacher.

It should be noted also that the group of subjects, included under Elementary Science, is obligatory only upon the pupil in the general course, and the candidate for a teacher's non-professional certificate. Many Principals, however, advise all the Entrance Class to take the subject for one year at least, as a useful means of culture, and until their future course has been settled.

The following suggestions are the result of inspectorial observations during the past year:

(1). The ordinary physical and chemical laboratories may be made to serve for the four subjects of the Elementary Science course. Where at all practicable, however, it would be well to have a room reserved and specially fitted up for Biology. As has been pointed out above, a Herbarium and Arboretum, and a Museum are also indispensable, and some schools have already made a good beginning. There is no reason, either, why an Aquarium and a Terrarium should not be provided, except, of course, during the winter months, where the laboratory is not suitably heated. All this equipment should be the special charge of the Science Master; but the pupils and the public should contribute to it as occasion may serve. In a few years, indeed, the school may thus become a bureau of information of great value to the district. The school should also communicate, from time to time, with the Geological Survey at Ottawa, the Agricultural Department at Toronto (and Guelph), the Experimental Farm at Ottawa, and the Science Departments of the Universities, both to secure their periodical publications and to consult them when they can supply needed information.

(2). As the definition shows, the Elementary Science is observational and experimental. From the nature of the course, a class text book cannot be used in Biology; and, if the work is properly done, one will be unnecessary in Physics and Chemistry also. Books, however, should be constantly in use by the pupils for reference and for supplementary reading. In view of our experience, the method of the class work in Physics and Chemistry should present no difficulty if the object of the course is kept in view. In Biology, a subject largely new in character, the main feature should be the regular class discussions. In addition, and connected therewith, there should be other exercises suggested by the ingenuity of the teacher; as, for example, simple questions for investigation out of school hours, proposed to the class or to individuals; discussions prompted by the pupils themselves; essays on

various topics with illustrative drawings; collections by individual pupils of classes of plants and animals. A few excursions should be provided for each Fall and Spring during school hours or on Saturdays. To permit of these in school hours, the class periods should be arranged so that the Upper School Science classes may be at work in the laboratory during the teacher's absence. For these excursions, it is indispensable that instructions be given the class before leaving the school as to what special points they are to attend to, what materials or phenomena they are to look for, and what particular locality they are to investigate. Without such system, very little demonstration can be made in the woods and the fields, and what should be one of the most valuable features of the course will become a wasted opportunity. A written report of his work should afterwards be required from each pupil, and the material collected and the observations made should be discussed as part of the subsequent class exercises. Some science masters place a book upon the teacher's desk in each of the class rooms concerned, in which pupils record from day to day any observations they may have made. Although, no doubt, crude at first, these observations are useful and stimulating for class work. Other teachers, again, devote part of Monday's lesson to the discussion of observations made by the pupils during the preceding week. The amount of wood-lore which the pupils of rural schools possess and are able to collect is often surprising.

Next to the class discussions, the most valuable part of the work is the preparation of accurate notes by the pupils. For this a special book, not a mere scribbler, is indispensable.* The first step in the class work is to teach the pupil what to record and how to record it: when he begins he can neither methodize nor discriminate. Until the class are able to put their work down in reasonably good form it should be written in rough note books, and after individual criticism by the teacher should be copied in the regular note books. After a month or so the pupil will probably be competent to omit the intermediate stage in the work of recording; but it will be many months before he can dispense wholly with the teacher's guidance in the work of discriminating. Unnecessary assistance must, however, be carefully avoided, and, in particular, notes must not be dictated by the teacher. The notes will, of course, deal only with the main points; they should be simply an intelligible record, whose main object, apart from the training gained in making them, is to enable the pupil to review his work. It will sometimes happen, of course, that the work in connection with a topic cannot be systematized and recorded until the observations have been completed; but, as a general rule, the record should be made as promptly as possible, whether in the class or at home or at their seats depending upon circumstances.

As a means of expression the value of Drawing can hardly be over-estimated. In many respects it is far superior to word description, and it should be employed wherever suitable. The Drawing, however, must invariably be a rigidly accurate reproduction of the object.

(3). The first duty of the teacher of Elementary Science (and of Physical Geography) is to make himself well acquainted with his environment—with the resources, the physical character, and the economic

* At date of writing The Charles Chapman Co., London, Ont., and The Copp, Clark Co., Toronto have supplied such note books. The former supply also loose leaf scribbles, which are intended to save the teacher trouble in handling the first draft.

requirements of the surrounding district. It is not putting the case too strongly to say that, for the Biology in particular, the teacher's environment is his best text book. The better his scholarship, the better will be his teaching; but, if he relies upon mere book knowledge, he will signally fail to accomplish the object of the course. He should be able to tell the pupils where they can get material and to direct and correct their observations, although not with them on the spot.

(4) Before beginning his work, knowing the conditions and the number of lessons at his disposal, the teacher should make a tentative apportionment of so many lessons to each topic, subject, in Biology in particular, to necessary readjustment as his work proceeds. He should himself keep a note-book in which to record, from day to day, the work he has taken up in class. In Biology, of course, the material will vary in different localities, and, from year to year in the same locality; but there will be on the whole a general consistency of development. With such a note-book, the teacher can methodize his work as well as economize his time. As has already been pointed out, the order of the topics is at the discretion of the teacher. It would be well, though, for the inexperienced to follow in a measure the order of the syllabus until they are able to strike out for themselves.

Another matter of prime importance: *Throughout the whole course the teacher must supervise the work in the pupils' note books.* Without such supervision, note taking by juniors is practically worthless. This means slow progress at first, but it is work that will pay in the end.

(5) In Elementary Science, as in the other subjects of the High School course, regular oral and written examinations should be held on the preceding work, to test not only the pupil's knowledge of facts but his power to reason. The promotion examination at the end of the Lower School course should include this department, and the Principal's certificate for Part I. should take into account the Science Master's report of this promotion examination and of the work in the note-books as well as the other class exercises.

(6) In accordance with what has been already said, the text-books the teacher needs most for the course in Elementary Science are those that will help him to become familiar with his environment. The High School Reference list of 1902, with the Supplement just issued, contains a full list of modern works in Science, and the descriptive notes thereto will help the teacher in making a selection for both the pupil and himself. The following will be found suitable as a small library in Elementary Biology for his own use:

For General Biology: Coulter's *Plants*; Atkinson's *Elementary Botany*; Spotton's *Botany, Part I.*; Jordan, Kellogg and Heath's *Animals*; Colton's *Descriptive Zoology*; Thompson's *Study of Animal Life*.

For Agricultural Applications: Percival's *Agricultural Botany*; James's *Public School Agriculture*; Birkett, Stevens and Hill's *Agriculture for Beginners*; Roth's *A First Book in Forestry*. The first of these text books, probably the best "Applied Botany" we have, is a comprehensive treatise; the others will suggest work of an elementary character.

For Class-work: Pepon, Mitchell and Maxwell's *Studies of Plant Life*; Walter, Whitney and Maxwell's *Studies of Animal Life*; Colton's *Practical Zoology*; Boyer's *Elementary Biology*. These text books suggest the general character of class work, but the treatment of the subjects is too advanced for the Lower School; no minute dissection should be attempted. Besides valuable discussions and useful information about plants and animals, the following contain practical suggestions in regard to class work, which are nearer our present stage of advancement, in the first year of the course at any rate: Silcox and Stevenson's *Modern Nature Study*; Lochhead's *Outlines of Nature Studies*; Hodge's *Nature Study and Life*; Dearness's *The Nature Study Course*.

For guidance in Practical Work: Muldrew's *Nature Study Collection*; Colton's *Teachers' Manual*; Ganong's *The Teaching Botanist*; Eugene Smith's *The Home Aquarium*; Hemenway's *How to Make School Gardens*; Brown's *The Taxidermist's Manual* (\$1.25, Putnam's Sons).

For Identification and Classification: In addition to the preceding works, the teacher must possess or have access to Floras and Faunas, a sufficient supply of which should, at any rate, be in the High School library. The following are suggested, but, of course, a more comprehensive selection may be made from the Reference Catalogues of 1902 and 1905: Doubleday, Page & Co.'s *The Nature Library*, in 10 vols.; Spotton's *Botany, Part II., (The Flora)*; Muldrew's *Sylvan Ontario*; Keeler's *Our Native Trees*; Comstock's *Manual for the Study of Insects*; McIlwraith's *Birds of Ontario*; Chapman's *Color Key to North American Birds*; Merriam's *Birds of the Village and Field*; Everman's *American Food and Game Fishes*.*

NOTE.—Ward's Natural Science establishment, 76-104 College Ave., Rochester, U.S., furnishes Colleges and Schools with every kind of Natural History collections except Botanical specimens and Insects. No Canadian house of its character has yet been established. The Chas. Chapman Co., London, Ont., furnishes Botanical, Entomological and miscellaneous supplies for practical work (labels, insect boxes, trays, etc., etc.).

COMMERCIAL COURSE.

Under the old regulations much energy was uselessly expended upon Bookkeeping. Pupils generally were put into Bookkeeping because a comprehensive course in it was supposed to be necessary to all classes of citizens, and sometimes because they were not otherwise engaged when the subject was being taught those intended for business. As a matter of fact, the knowledge of commercial transactions the ordinary pupil needs may be readily acquired in connection with Commercial Arithmetic. A well taught commercial course affords, it is true, good mental discipline; but the pupil who is not intended for business should get his discipline from the subjects that are of immediate importance to him. That system of organization is best which best utilizes the pupil's energies. Under the new regulations the Bookkeeping Course on p. 68 is obligatory for teachers' certificates only, while on pp. 73-74 a special course in commercial work is provided for those who wish it.

The minimum amount prescribed for Part I of the non-professional Junior and District Teachers' certificates is given in the note to the course on p. 68. As the note also points out, the sets prescribed are to be the *first* work done in these sets, *not copies* of preliminary drafts. This means, be it carefully noted, that, before the pupil begins the three prescribed sets, he shall have had ample preliminary training. In accordance with the scheme of organization already advocated, the course in Bookkeeping should be an intensive one of about six months, from, say, January to the end of June of the first year. When, however, as is sometimes the case, there is no outside pressure for commercial work in the first year, the course might with advantage be postponed to the second. Then, owing to previous training and greater maturity, the pupil can accomplish the work with less difficulty and in a shorter time. Moreover, with this organization, no special provision will be needed for those who enter at the second year without having completed the work.

In some of the special courses, heretofore too little attention has been paid to Stenography and too much to Bookkeeping and Business Papers on the one hand; while, on the other, the subjects of general culture have not been stressed enough. General adaptability is an

*For details as to character and prices, see the High School Reference Catalogue of 1902, and the Supplement of 1905.

indispensable adjunct of technical knowledge. The intelligent business man, it is well known, prefers to the so-called business graduate the high-school pupil who has been well trained, and who, in particular, is a good speller and ready reckoner, and can write a good hand and compose a good letter, even if his course in Bookkeeping has not been a very extensive one. Moreover, the number who, on leaving school, are entrusted with the account books of an important business is very small indeed. The difference between the commercial courses of the Business College and those of the High School should be the emphasis the High School places upon a good general education. In schools where the commercial classes are not segregated from the others in the first year, all might take together at least the subjects that are common [see Reg. 39 (4) and (6)]. In this year the subjects of general culture should receive special attention, the stress being afterwards transferred to the subjects of the commercial course. Indeed, in the first year, the Bookkeeping for the Junior Teacher's certificate would be ample even for the commercial section. No school at present has a commercial course of more than two years. In the note at the foot of p. 74 provision is made for one extending over three years. In our cities, at least, it should soon be practicable to have such a course. Two years of High School training is too little for the business man of the future.

ART COURSE.

Heretofore, practically no special equipment or accommodations have been provided for the department of Art, although, obviously, its efficiency depends upon these as much as does the department of Science. In the larger schools a commodious and well-lighted room should now be set apart, furnished with suitable desks and presses, ample blackboards, and water supply and at least one sink. Here, too, the walls should be adorned with good reproductions of the best pictures (See under "School Decoration" below). The influence of artistic surroundings in the Art-room, in particular, cannot be overestimated. When a separate room is not available, one of the ordinary class-rooms should meet the foregoing requirements as far as practicable. In such class-rooms care should be taken when water-color work is to be done to have water in individual cups or glasses, so provided that no time shall be lost either at the end or the beginning of a lesson: an additional inkwell in each desk would meet the case conveniently. A set of drawing models of wood or painted tin should be purchased for the teacher's use, with vases and casts of various artistic objects; and each pupil might himself have a set of type models from which to do his drawing. The sphere, hemisphere, ovoid and spheroid must, of course, be turned from wood, but the rest may be easily made of cardboard or stiff manilla paper. On this subject, as, indeed, on many others, the teacher will find helpful suggestions in Nos. 1 and 2 of the drawing-books authorized for the old course. Blank drawing books should, of course, be used now, the teacher himself supplying the exercises.

When properly carried out, the old course had some practical value besides its educational value as hand and eye training. To these the new course is designed to add some æsthetic culture. We cannot, it is evident, secure complete efficiency at first; this department, in particular, is one of slow growth at best; but we may gradually improve the situation.

As to the order of the subjects: Some teachers prefer to take all the first year in an elementary way, completing the course the second. Others, again, prefer to take the elementary course in part the first year, carrying over the rest to the second year. The plan to adopt will naturally depend upon the time-allowance for the department. From its nature, Drawing should, it is evident, be stressed the first year, seat-work being provided as far and as soon as practicable; and less class-work and more seat-work should be done the second. In the first year the subjects might be taken in the following order: Drawing from "Models" (the term includes all kinds of "objects"); Memory-drawing (under the old regulations known as "object-drawing"); the principles of Freehand Perspective, the subject, however, being taken up as needed with the Model and Memory Drawing and extended a little thereafter; Inventive Illustrative Drawing; Ornamental Design, introducing Practical Geometry and its application to Design. Orthographic and Isometric Projection (merely the elements) might be deferred to the second year, except where Manual Training is taken up; and, in such schools, the Ornamental Design might be taken in the second year. Light and Shade and Color will, of course, be used whenever applicable to the subjects of the department of Art.

For economy, as well as for purely educational reasons, it is most important that the principle of correlation, which is a leading feature of the new programme, should be observed throughout the Art course. The most effective work will, accordingly, be done if the Science-master teaches Drawing also; or being himself proficient in the art (as every Science-master should be) works in close harmony with the teacher of Drawing. This principle applies, it is manifest, with at least equal force, to the Practical Geometry of the course in Designing and the Introductory Geometry of the new Mathematical course.

Although color work has been prescribed for the Public Schools since last September, it will evidently be some years before even a majority can do satisfactory work with this vehicle. In most localities, indeed, the Public School work even with pencil has been unsatisfactory. It would be well, therefore, to devote as many as may be needed of the early lessons to practice with rectangular and circular models in light and shade. The pupil may thus be set on the way to acquiring the habit of accurate drawing—a habit of the utmost importance and one which he is less likely to acquire if he begins with irregular objects. He should then be carefully taught the use of brush and color. Thereafter, in the Spring and Fall, he can use his pen, pencil, and brush in Botany and Zoology as well as in the ordinary fields of Art. In Winter the same plan should be followed with Physics and Chemistry.

The preceding remarks deal, of course, with the Drawing prescribed on p. 68 of the Regulations—the course which is obligatory only for a teachers' non-professional certificate and for pupils in the general course, but which, on account of its culture value, deserves, for a year at least, the same consideration in the organization as has been recommended above for the Elementary Science. For some years, the special Drawing course on p. 80 can be taken in only a few of the larger Collegiate Institutes, and in most of such schools only when competent teachers can be procured. The attention of the teacher of Drawing is accordingly drawn to the course for Art Specialists. Circular No. 2, which defines it, contains a list of works of reference, and others will be found in the

Reference Catalogue of 1902 and in the Supplement just issued. For the convenience of the teacher in the ordinary course, the names of the works which will be found most serviceable are given here:

For Model Drawing: *Light and Shade*, Cross, \$1.00, Ginn & Co., Boston; *Color Study*, 60c., the same author and publisher.

For Memory Drawing, Freehand Perspective, and Inventive Illustrative Drawing: *Text-books of Art Education*, Prang; *New Drawing Course*, Vaughan, in four parts, 2/6 each, Nelson & Son, London, Eng.

For Ornamental Design: *Color Study*, Cross; *Design and Making of Patterns*, Hatton, 5/, Chapman & Hall, London, Eng.; *Science and Art Drawing* (complete Geometrical course), Spanton, 10/, Macmillan Co.; *The Bases of Design and Line and Form*, Walter Crane, 6/ each, Geo. Bell & Sons.

For Orthographic Projection: *Mechanical Drawing*, Cross, Ginn & Co., Boston. *Practical Plane and Solid Geometry*, Rawle, 1/6. Simpkin, Marshall & Co., London, Eng. *Science and Art Drawing*, Spanton.

For Isometric Projection: *Science and Art Drawing*, Spanton.

SCHOOL LIBRARIES.

No part of the school equipment is more important than the Library. There is no field of human enterprise in which the man who uses a library has not an advantage over the one who does not, and the school is the place where he should acquire the habit. Besides, the use of the High School library is the indispensable concomitant of the independent work which the new regulations enjoin. In this connection, two matters are of prime importance—the character and the situation of the reference books. Occasionally, some of the books are at present better adapted to the use of the adult, and the library is inconveniently situated. In the selection of the books the necessities of the junior pupil should be borne in mind as well as those of the senior; and the books themselves should always be readily accessible, and need not all be kept in the same room. The general reference books might be kept in a special room or in the Principal's room, of which the senior pupils should have the freedom during their study periods. Sometimes, however, the reference books most in use are, with advantage, kept on reading stands in the main hall. But the special reference library of each department would be more serviceable if in the class-room where it is most in demand. Manifestly, when a reference book is needed, it should be close at hand. Here it is well to emphasize the fact that the Education Department has just issued a Supplement to the Reference catalogue of 1902. No book has found a place in either catalogue the value of which has not been attested by competent authorities. Teachers may, therefore, make their selection from either with confidence in its reliability.

TEXT-BOOKS.

Since the issue of the list of 1904 some additional High School text-books have been authorized. Two in particular deserve special consideration: Baker's *Theoretical Geometry for Schools* and *The Principles and Practice of Reading*. The former has been prepared for the use of the forms that will go up for the University Matriculation and the Teachers' non-professional examinations of 1907; for the new courses in Geometry come into full operation in both the Middle and the Upper Schools after the examinations of 1906. Many of the selections in *The Principles and Practice of Reading* are suitable for the Literature class and may be so used also; but the book has been prepared especially for the classes in Oral Reading, and experience has shown that the

Reading lesson loses much of its freshness if the selections have already been used for another purpose. Oral Reading is subsidiary to Literature teaching, and the meaning of the passage is the first and an indispensable step in the Reading lesson; but the main object of the Literature lesson is the cultivation of taste, while that of the Reading lesson is the effective rendering of the author's meaning. These objects are best secured in the earlier stages, at any rate, when the main object in each case is kept steadily in view. We should have correlation without confusion. The plan of *The Principles and Practice of Reading* is an excellent one, and, if properly used, the book will do much to lighten the teacher's labour and make his work more effective.

In par. 2, of the authorized text-book list, the following is emphasized :

"Books authorized for use in the Public Schools may be used in the Lower School, and it is recommended that, so far as the Principal may deem it advisable, these books be used for the first year instead of the corresponding High School books."

The recommendation applies to the Public School text-books in Arithmetic, English Grammar, History, and Geography. These books are seldom if ever completed in the Public Schools, and, for economic reasons, should be used the first year in the High Schools. With such additions as the competent teacher will supply, they contain ample material for the period. A change in text-books should be made only after due deliberation and only with a new class; and the responsibility for advising the School board on the subject devolves on the Principal and not on his assistants, although, of course, the judicious Principal will seek their advice when their interests are affected. Reasonable notice should also be given by the Principal to the local bookseller, of any changes to be made in the text-books used in the High School. It has sometimes happened that desirable changes have been delayed in order to enable him to get rid of stock he has on hand. Sometimes, on the other hand, he has been treated with scant consideration.

TEMPORARY CERTIFICATES.

Reg. 37 (2) reads as follows :

"If, after due advertisement, a High School Board is unable to obtain a legally qualified assistant, a temporary certificate may be granted by the Minister of Education for the current half year to a suitable person on application to the Board."

When the occasion arises, it will be proper for the Principal to point out to his Board that the application of a legally qualified teacher whose non-professional certificate includes the work to be done, is entitled to acceptance, no matter what may be its grade; and that a temporary certificate must be secured under the regulation, before the person without the legal qualification can be appointed. If a board desires a higher qualification than that available under its first advertisement, it is open to it to advertise again, offering a larger salary. On its failure, after reasonable efforts, to secure the kind of teacher it wants, a printed form will be sent on application to the Deputy Minister, to be filled in with such a statement as will enable the Minister to dispose of the case with due regard to both the local and the general interests. Reg. 35 (4) provides the Department with the means of enforcing its decisions. The scarcity of teachers which, it is alleged, has become acute in some departments, makes Reg. 37 (2) of more importance now than heretofore. The existing stringency, however, is not wholly attributable to this

scarcity. The salary question, it is well known, is the important element in the situation. Competent teachers will remain in their positions and competent teachers will return to the ranks if adequate inducements are offered them.

SCHOOL DECORATION.

In grading the accommodation special importance is now attached to School Decoration (See Reg. 149, (5) and (7). Not only should suitable color schemes be adopted for calsomining or papering the halls and class-rooms, but the walls (including, of course, those of the Assembly room) should be decorated with good pictures; and casts, vases, and other ornaments should be provided. After 1905, Grade I. will, accordingly, not be given the halls or the class-rooms which are bare of ornament or unsuitably colored. In the present condition of most of the schools of the Province, it would be unreasonable to expect paintings (and the chromolithograph is seldom good); but good photographs (especially carbons), etchings and engravings may be bought at moderate prices, and, in the matter of casts and vases, the form is of more importance than the material. Quality is more to be desired than quantity; all the Education Department expects is that each school shall, from year to year, make a reasonable effort to comply with the requirements. Very generally, as is well known, we have good substantial school buildings, and grounds that are by no means discreditable. We should now make an organized effort to improve the interiors. To this end the Literary Society and the Graduating Class may be expected to contribute, not to speak of public spirited citizens. In the words of U. S. Commissioner Harris, our pupils should have "not merely the piety of the heart, but the piety of the intellect that beholds truth, the piety of the will that does good deeds wisely, the piety of the senses that sees the beautiful and realizes it in works of Art."

On p. 63, Section XIV. of the High School Reference Catalogue of 1902, will be found suggestions on the subject of School Decoration. No more useful book has been published on the subject than Burrage & Bailey's *School Sanitation and Decoration* (\$1.50. D C. Heath & Co., Boston). Every school library should have a copy and every School Board and Principal should consult it.

Public and High School Courses of Study

Duties of Teachers and Pupils

For the use of the Teachers-in-Training in the Faculties of Education
and the Normal and Model Schools of Ontario.



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1908

PUBLIC SCHOOL PROGRAMME OF STUDIES.

General.

MANNERS AND MORALS.—Throughout the whole Public School course the teacher should incidentally, from current incidents, from lessons in literature, history, etc., occasionally by anecdotes and didactic talks, and by his own example as well as by precept, seek to give instruction in moral principles and practices and in good manners.

The following outline is suggested:—

Duties to oneself: Purity, health, nobility, self-control, self-reliance, generosity, truthfulness, good taste in dress, cultivation of will power, economy, moral value of work, etc.

Duties in school to teachers and to fellow pupils: Obedience, punctuality, neatness, order, etc.

Duties in the home: Respect for parents, consideration for brothers and sisters, the weak, the aged, etc.

Duties to the lower animals: Kindness, etc.

Duties to the people generally: Honesty, courtesy, charity, toleration, justice, etc.

Duties to our country: Patriotism, courage, honour, obedience to law, etc.

Manners: Proper conduct at home, at school, on the street, and in public places, at social gatherings, etc.

READING AND LITERATURE.—In both Reading and Literature throughout the course, the objects are intelligent and intelligible natural reading and the creation of a taste for the best kinds of books. But, in the Reading class, the main object is the former; and in the Literature class, the latter. Silent reading should receive attention as well as oral reading, the results of both being tested by questions or by oral or written reproduction. In Literature, the books should be chiefly narrative and descriptive, being obtained from the School or Public Library or provided by the Board or the pupils themselves, as may be determined by the Board. Even when a supply of suitable books is obtainable, the teacher, in the lower classes in particular, should read to the pupils or give them in his own words much of the best literature. From the first also the pupils should be required to memorize and recite choice selections, not merely to cultivate the verbal memory but to learn to appreciate beauty of thought and expression and to store the mind with literature that will enrich their lives.

COMPOSITION.—Throughout the courses, oral and written composition should be correlated with all the other subjects. In the lower forms, the material of the Nature Study, in particular, should afford a basis for oral language lessons. The stories or myths told or read to the pupils should be reproduced by them orally. Pictures may also be used to stimulate their imagination and to train them, by conversation, in easy and correct oral expression of thought and feeling. The written language lessons involve all implied in the oral work, with the addition of training in the mechanism of written expression.

WRITING.—Until the proper formation of letters and figures is thoroughly learned, instruction in writing should be correlated with that in Reading and Arithmetic, and thereafter the character of all the written

exercises should receive close attention, with due emphasis upon the attitude of the body and the position of the pen and paper.

ART.—As means of expression, the Art subjects should be connected closely with nature work, constructive work, history, and literature. Many pictures should be used in the lower classes, and each subject should be illustrated with the child's free expression. As in writing, special attention should be given to the attitude of the body and the position of the paper and the pencil, etc.

CONSTRUCTIVE WORK.—The object of constructive work is mental development and physical control. The making of things should be subsidiary to the thought processes involved, and the exercises should sustain the child's interest, and take advantage of his natural desire to construct. Constructive work should make the ability to do a part of the knowing, and should incorporate knowledge into habit and theory with practice. The amount of work accomplished is unimportant in comparison with the mastery of correct methods and the formation of good habits. Every opportunity should be given the pupils to modify given type models or to design new ones, and in the lower grades to rearrange given units or create new combinations. All of the work should have in it the elements of beauty in construction, in proportion, and in decoration. Though we may not be able to add to the quantity or the variety of the material, we can modify its form and we can arrange it in new combinations. The making of new forms and combinations, the giving of definite expression to ideas and mental images, the rendering of the inner outer, is the great Froebelian doctrine of creativeness.

NATURE STUDY.—From the character of the subject the course must be more or less elastic, and the topics detailed in the programme are intended to be suggestive rather than prescriptive. It may be that, owing to local conditions, topics not named are amongst the best that can be used, but all substitutions and changes shall be made a subject of consultation with the Inspector. The treatment of the subject must always be suited to the age and experience of the pupils, and to the seasons of the year, accessibility of materials, etc. Notes shall not be dictated by the teacher. Mere information, whether from book, written note, or even the teacher, is not Nature Study. The acquisition of knowledge must be made secondary to awakening and maintaining the pupil's interest in nature and to training him to habits of observation and investigation. Books for reference and supplementary reading should, however, be provided in the school library. Some valuable publications on the subject of Nature Study, for the teacher's use, may be obtained free on application to the Department of Agriculture, Toronto.

PHYSICAL CULTURE.—A systematic and well-developed course of physical exercises, both free and with apparatus, should be taken up in each of the sub-divisions. While dependent to some extent upon the accommodations and the equipment, the exercises should always be suitable in character and frequency to the age and physical condition of individual pupils. The main object of the course is the symmetrical development of the body, securing at the same time strength and grace, with correct and prompt obedience to the will. The unconstrained but suitable position of the pupils in walking and in their seats and on the floor should also receive due attention. Prevailing defects should be studied and exercises given to correct them. School games and sports should be

systematically encouraged. Free play under the direction of the teacher is indispensable, especially in the lower forms.

MUSIC.—Singing should be taken up in all the forms. The fact that it is one means of self-expression should be kept in view, and the songs first learned should be those that the pupil can readily appropriate to himself. In the first form, accordingly, the methods and materials of the Kindergarten should be continued. The course should begin with rote-songs, easy notation being introduced towards the close of Form II. and continued throughout according to the age of the pupil and the competency of the teacher. Form III., however, represents the transitional period from the emotional and natural uses of music to its more formal presentation. This stage brings a definite change from ear to eye, from rote to sight-singing, to the recognition in their printed forms of impressions of pitch and rhythm acquired in the earlier stages.

NOTE.—After consultation with the Inspector, suitable books in the different departments of school work should be selected for the library from the *Catalogue of Books Recommended for Public School Libraries*.

Form I.

READING.—Intelligent and intelligible natural reading. First Readers, Parts I. and II. Phonic Readers. Supplementary reading books and selections of corresponding grade. Analysis and synthesis of words by sound and by letter. Exercises in breathing, articulation, and vocalization.

SPELLING.—Transcription; dictation and oral spelling of phonic words; dictation of selected sentences. Careful attention to spelling in all written work.

LITERATURE.—Myths, fairy stories and fables; stories and poems illustrating nature study lessons, and appropriate to the time of the year and to the various school holidays; learning and reciting of literary gems.

COMPOSITION.—Oral and written statements in connection with form and colour study, nature study, etc.; oral and written reproduction of stories told or read; description of actions, events, etc., within the pupil's experience or knowledge; transcription from readers with attention to capitals, spelling, and punctuation; correction of common errors in conversation.

HISTORY.—Stories of primitive people: Abraham and Isaac, Jacob and his sons, the bondage in Egypt; the ancient Britons; the North American Indians and Eskimos, their mode of life, their occupations and customs; special reference to the Indian tribes inhabiting the school localities. Stories relating to our public school holidays.

GEOGRAPHY.—Observation of particular forms of land and water, as hills, valleys, ravines, streams, ponds, etc., in the neighborhood of the school; location of objects observed; general notion of position and direction; activities of home and vicinity, the farm, the shops, the factories, things brought to market, food, milk, water supply, shelter, and clothing, rail and other roads, water-ways; systematic trips to places of geographical interest near the school; observation of the progress of the sun from sunrise to sunset; observation of position and appearance of the

moon, the "Great Bear;" clouds, appearance, motions; rain, snow, hail, etc.; stories of child-life in other lands with illustrations.

NOTE.—In its early stages geography should be but a phase of the observational work in Nature Study.

ARITHMETIC.—Numerical relations based upon grouping and separating objects and quantities; measuring in connection with objective work; common units of measurement within the child's experience, as inch, foot, yard, square inch, pint, quart, gallon, peck, cent, dollar, ounce, pound, day, week, month, year, to be learned in practice; addition and subtraction of small numbers; systematic numbering to 1,000's. Accuracy, rapidity and neatness of the work should be kept in view.

NOTE.—The need to use numbers will frequently arise in the nature work and other exercises in the class-room. The required numerical relations should then be made definite. In this way, with or without figures, many of the analyses and syntheses of the numbers as far as ten will be learned practically. At each stage arithmetical problems should be made to grow out of and be connected with the child's experience.

WRITING.—Special attention to the proper position at the desk, of body and of pen and paper; words and letters as taught in the reading lessons, and figures and numbers as taught in the arithmetic lessons, on paper at the desk under the direct supervision of the teacher; lightness of stroke and freedom of movement, with easy movement exercises from the first, similar to the letter and figure forms, at the desk and at the blackboard.

ART.—Freehand expression with pencil, pen, crayon, and water-colour.

Six standard colours.

Blackboard and pencil drawing (free movement).—Simple natural objects and other objects in which children are interested, as toys, dolls, etc.

Water colours or coloured crayons.—Simple grasses, leaves, sprays, flowers, fruits, birds, pet animals, etc., studied in nature work.

Colour, pencil, or ink illustrations of stories; study of pictures.

CONSTRUCTIVE WORK.—Paper cutting and folding in elementary geometric patterns, colouring and grouping of these as bases of design; this work to be connected with drawing and modelling in clay.

Making of objects, as picture frame, window, envelope, etc.

Basket and raffia work.

CLAY MODELLING.—Natural objects, as orange, apple, onion, tomato, potato, egg, simple leaf.

Common objects, as box, bird's house, small loaf of bread, cup (without handle) and saucer, flower pot and saucer, basket, tea set and tray.

NOTE.—In the above, all modelling should be done from the actual object, as many being provided as will enable each child to make a thorough examination.

Free modelling.

NOTE 1.—Under this head the children should make what they wish and should be encouraged to invent forms and patterns for themselves.

NOTE 2.—Clay modelling should be so treated as to become an aid to conception of form. It should also be correlated with Nature Study.

PHYSIOLOGY AND HYGIENE.—General observations of the body. Simple lessons on the hair, teeth, skin and nails, and on the care of the organs of the senses. Very simple lessons on eating, drinking, breathing, sleeping, and cleanliness, for the purpose of forming good habits.

NOTE.—Physiology and Hygiene should, as far as possible, be made a phase of the observational work in Nature Study.

NATURE STUDY.—Animal life: General appearance and habits of pet animals, their care and food; domestic animals on the farm, their care, habits and uses; birds, their nesting, song, food, migrations in the autumn; metamorphosis of a few conspicuous butterflies or moths.

Plant life: Work in school garden or in window-boxes; study of a plant, as a geranium or pansy, from slip or seed to flower; caring for plants in pots; buds, their preparation for winter, their development; autumn leaves, collections, forms, tints; economic fruits, collection, forms how stored for winter, fruit as seed holders, dissemination of seeds; roots and stems, uses, comparison of fleshy forms, how stored for winter.

Life on the Farm: Harvesting, primitive and modern methods compared; preparation for winter; the barn and its uses; activities of the farm during winter; winter sports and social life on the farm; the varied operations of spring time; spring time as awakening to new life; effects of sun and moisture on the soil.

Form II.

READING.—Intelligent and intelligible natural reading. Second Reader. Supplementary reading. Phonic drill. Use of the dictionary begun. Exercises in breathing, articulation, and vocalization.

SPELLING.—Oral spelling, easy words in common use, careful attention to spelling in all written exercises; dictation of assigned passages in Readers; difficult words and phrases taught from the blackboard.

LITERATURE.—Literature suited to the interest and capacity of pupils; learning and reciting of literary gems.

COMPOSITION.—Application of the terms, sentence and paragraph in connection with reading lessons and written exercises. Oral and written compositions on topics connected with nature work, geography, history, etc.; reproduction of stories told or read; narration of personal experiences; description of familiar places, objects, or pictures; simple letter writing; attention to the correctness of English in conversation and in all oral and written exercises; proper use of common punctuation marks, capitals, abbreviations, simple uses of the apostrophe.

HISTORY.—Classical myths and stories: Bible stories; stories connected with pioneer life, especially in the district in which the school is located; biographical sketches of early discoverers and early explorers.

NOTE.—For Bible stories, the following are suggested: Moses, Joshua, Samuel, Saul, David, Solomon; and for the other biographies: the Cabots, Cartier, Champlain, Brebeuf, Lalemant, La Salle, Frontenac, Fraser, Thompson, Henry, Iberville, Cook, Vancouver, Mackenzie, Selkirk, the Norseman, Columbus, Magellan, Cortes, De Soto, Gilbert, Raleigh.

GEOGRAPHY.—Continued observation of local land and water forms. Observation of highest points in the neighborhood, the chief slopes, hills, valleys, divides, etc., Special study of a brook, creek, or river, to see

origin, direction, size, work or draining, eroding, carrying, plant and animal life along banks, etc. Representation by drawing and modelling of typical surface features actually observed by pupil. The earth as a whole: Form, size, rotation, cause of day and night; sources of heat and light. Introduction to globe and map of the world. Surface: Continents, islands, oceans. Local commerce: Articles of exchange, collecting and distributing centres, water supply and sources of food in urban centres, means of transportation, routes. Observation of weather: Winds, direction, force; clouds; rainfall; frost; changes of season; characteristic features of each season; systematic weather records; general notions of climate; record of moon's phases, with drawings of their appearance. People of the locality, nationalities, appearance, original homes, etc.; child life in other lands. Location of any places of historical interest in the neighborhood.

ARITHMETIC.—The grouping and separating of numbers continued; mental arithmetic; addition, subtraction, multiplication, division. Relation of wholes to parts and parts to wholes; measurements continued; use of arithmetical signs and fractional forms in expressing simple relations, notation and numeration to 1,000,000's; Roman notation to one hundred. Accuracy, rapidity, and neatness of work should be kept in view.

WRITING.—Correct position and penholding. Movement exercises. Small letters and capitals. Spacing and joining. Copybooks, or graded exercises prepared by the teacher.

ART.—Study of colour continued. Colour and freehand expression.

Free drawing of plants and other common objects; pencil sketches of common objects.

Water colours: Fall flowers and leaves with brilliant autumn tints; butterflies and other insects; live or mounted birds; fish, etc.

Memory, imaginative, and illustrative drawing.

Study of pictures.

CONSTRUCTIVE WORK.—Work of Form I. continued. Paper cutting for simple patterns and designs. Ruling in geometric forms and colouring these. Simple cardboard and paper construction, as wall-box, chair, tray, etc. Ornamentation of constructed objects by colouring and drawing. Modification of models; original work. Basket and raffia work.

CLAY MODELLING.—Natural forms: Apple, beet, banana, leaf, apple and twig, etc.

Common objects: Cup with handle and saucer, flower pot, bat, piece of coal, etc.

Free modelling..

NEEDLEWORK.—Simple stitches; sewing on buttons and hooks; simple mending.

PHYSIOLOGY AND HYGIENE.—Course in Form I. continued. Simple lessons on digestion, exercise, cleanliness, and ventilation. Lessons on the organs of the body, that can be taught by the Nature Study Method. General effects of tea, coffee, alcohol, and tobacco.

NATURE STUDY.—Course of Form I. continued. Animal life: Life history and habits of domestic animals and of familiar wild animals, as the squirrel, chipmunk, robin, crow; earth-worm, habits, structure, uses; toad, habits, structure, uses; observation of live insects and their activities, comparison of young and adult stages.

Plant life: Co-operative and individual work in school garden; cultivation of plants in pots with observation of the development of leaves and flowers; parts of leaves and flowers; change of flower to fruit and of fruit to seed; functions of the parts of flowers; the forms and uses of trees; activities connected with forestry and lumbering, with study of pioneer life and present conditions on the prairie.

Observation of farm, garden, and household operations.

Form III.

READING.—Intelligent and intelligible natural reading; Third Reader. Supplementary reading. Use of the dictionary taught and practised. Exercises in breathing, articulation, and vocalization.

SPELLING.—Careful attention to spelling in all written exercises, particularly in composition. Words in common use. Dictation of passages selected from readers, the spelling book, and other books.

LITERATURE.—Books suited to the capacity of the pupils; learning and reciting of suitable selections in both prose and poetry.

COMPOSITION.—Course for Form II. continued. Narrative, descriptive, and epistolary composition of several paragraphs. Punctuation. Business forms, such as bills, receipts, orders, due bills. Attention to correctness of English in conversation and in all school exercises. Language lessons on the following topics: The simple sentence; subject and predicate; the assertive, interrogative, imperative, and exclamatory forms of sentences; gender, case, and number forms; direct and indirect narration.

HISTORY.—The course of Form II. continued. Biographical sketches of persons famous in history. Short connected stories of the early history of Canada till the capture of Quebec (1759). Short stories of the early history of Britain till the Norman conquest. Biblical stories; the rise and fall of the Kingdom of Israel. A simple account of the municipal form of government in the locality.

NOTE.—In Biography the following are suggested: Cyrus, Constantine, Mohammed, Galileo; King Alfred, William the Conqueror, Thomas á Becket, Stephen Langton, Simon de Montford, Chaucer, the Black Prince, Wycliffe, Joan of Arc, the Kingmaker, Caxton, Mary Queen of Scots; Brant, Brock, Tecumseh, Laura Secord.

GEOGRAPHY.—The course of Form II. continued. An elementary course defined as follows:

The earth as a whole.—The earth in space: Observation of phases of the moon; relation of the earth and moon to each other; rotation of the earth, direction, time and rate, effects, revolution of the earth, path, direction, time and effects; general observation of stars, difference between fixed stars and planets; observation of position of north star. Necessity and use of imaginary lines; great and small circles; latitude and longitude, elementary notions only. Relief: world slopes. Drainage: world water partings, world basins, world river system, heat belts, light belts. Continents; locations, relief, drainage, and coast line of each continent. Local, physical, and political geography: relation of township, town or city to county, of county to province, of province to country, position of country in continent. Observation and description of the occupations of men and of local industries, emphasizing those that are

typical. Collection of pictures, sketches, materials, and products. Dependence of local industries and commerce on soil, climate and other local physical conditions; and consequent localization of settlement, routes of travel, mills, villages, towns, and cities.

North America.—Location and surroundings, form, coast line, relief, drainage, climate, political divisions; special conditions which determine and affect various industries, as agriculture, grazing, lumbering, mining, hunting, manufacturing; comparison of representative sections with reference to vegetable and animal life, and social conditions and progress of peoples; comparison of typical commercial centres, noting the sources of their wealth and power; the relation of climate to labor and production; water power; methods and routes of distribution and transportation.

Canada.—Study of the Dominion as a whole and in sections, with more particular study of Ontario.

ARITHMETIC.—Notation and numeration reviewed and continued. practice to secure accuracy and a reasonable degree of rapidity in fundamental operations. Cancellation. Application of fundamental processes to problems of daily life. Standard units and tables, including metric system. Easy problems in measurements. Reduction processes and compound rules. Relation of parts to wholes and wholes to parts continued; simple fractions; decimals in connection with money and units of metric system. Mental arithmetic. Accuracy, rapidity, and neatness of work should be kept in view.

WRITING.—Course of Form II. continued. Copy-books, or graded exercises prepared by the teacher. Business papers.

ART.—Drawing of plants, insects, etc., in any appropriate medium.

Arrangement in spaces, applications in borders, surface patterns and rosettes in colour, applied as far as possible in connection with constructive work.

Relative positions of views of geometrical figures in thin cardboard; simple geometrical problems. Study and drawing of details of Greek ornament and vase.

Water colour: Course of Form II. continued.

Simple landscapes from window or out-of-doors.

Study of pictures.

CONSTRUCTIVE WORK.—Cardboard construction and ornamentation continued. Whittling in wood with a knife.

Basket and raffia work.

NEEDLEWORK.—Plain hemming and back-stitching; making button-holes; fine mending.

PHYSIOLOGY AND HYGIENE.—The course of Form II. continued, with more special study of the growth, waste, and renewal of the body, and the effects of narcotics and stimulants on the various processes.

NATURE STUDY.—Course of Form II. continued.

Animal life: Adaptation of different kinds of animals to their respective habits and surroundings; birds, life history of types, habits of wild fowl in different seasons; fish, forms and uses of different parts of the body, food and how obtained; life histories of moths, butterflies, beetles and grass-hoppers; useful insects, as ladybird and dragon fly; harmful insects; Nature's insecticides.

Plant life: Germination of seeds under controllable conditions and in the school garden and window boxes; opening of buds; study of the

forms and functions of the parts of plants, and comparison of these forms and functions in different plants; observation of the culture of farm and garden crops and of orchard and shade trees; the observing and the distinguishing of the common forest trees.

Different kinds of soil, as sand, gravel, loam, leaf-mould and clay; experiments to ascertain how soils are composed, whether of mineral or of decayed organic material, and which best retains water. Additional phenomena of spring in the vicinity of the school, cause of snow melting, ice floating, etc.; how nature prepares the soil for growth of plants. Distinction between hard and soft, pure and impure water; tests and methods of purification of water.

Sources of heat: Experiments to show the effects of heat in the expansion of solids, liquids, and gases; practical applications. Temperature; thermometer, construction and graduation. Methods of transmission of heat, conduction, convection, and radiation; causes of winds and ocean currents; ventilation.

Form IV.

READING.—Intelligent and intelligible natural reading. Fourth Reader. Supplementary reading. Exercises in breathing, articulation, and vocalization.

SPELLING.—Careful attention to spelling in all school exercises. Simple rules for spelling. Words in common use. Dictation of passages selected from readers, spelling book, and other books.

LITERATURE.—Books suited to the interest and capacity of the pupils. Learning and reciting of suitable selections in both poetry and prose.

COMPOSITION.—Varied oral and written composition exercises in connection with all school subjects. Special attention to correctness of spelling, punctuation, use of capitals, choice and correct form of words; and to clearness, conciseness, freedom and comprehensiveness of expression. Business papers, business and social correspondence. Topical outlines. Critical attention to correctness of English in conversation and in all school exercises.

HISTORY.—The most important events in Canadian and British history, especially during the nineteenth century. Supplementary reading containing especially interesting biographical accounts of persons famous in Canadian and British history. A brief outline of the duties of citizenship and of the provision for civil government in Canada. The history of the locality in which the school is situated.

NOTE 1.—The chief object of the course is to arouse an interest in historical reading and to give an acquaintance with those leading points in our history which every citizen should know. The pupil now takes up the subject according to the chronological and logical sequence of events. Besides the class text-book, which presents the subject in this order, supplementary reading in biography should be provided in the school library, and the public library should also be utilized. Where a suitable supply of books cannot be obtained, the teacher should read to the pupils.

NOTE 2.—In biography, the following names are suggested: Wolsey, Elizabeth, Shakespeare, Cromwell, Milton, Robert Wampole, the Pitts, Montcalm, Frederick the Great, Nelson, Wellington, Washington, Lincoln, Peel, Stephenson, Howard, Rolland Hill, Tennyson; also the following: Clive, Hastings, Lawrence, Havelock; Wolfe, Carleton, Brock, Elgin, Macdonald; Cook, Phillips; Bartle Frere, Cecil Rhodes. These names, taken in connection with those in Form III., furnish points of interest in every epoch of the history of Canada and the Mother Land.

ENGLISH GRAMMAR.—The sentence. Subject and predicate. The functional values of words, phrases and clauses. Kinds of sentences. The main classes of words and the inflections and conjugations. The elementary principles of syntax. Analysis of easy sentences. Parsing.

NOTE.—Formal grammar is now introduced. This introduction should be of a simple character, suited to the as yet undeveloped logical capacity of the pupils. The subject should be taken up inductively and the results secured by examination and comparison of easy examples. The analysis and parsing should be simple and free from mechanical routine, as little technical language being used as possible, and the greatest care being taken to ensure a competent knowledge of the terms used. The inflections and conjugations should be thoroughly memorized. The principles of good English should be applied in the correction of bad English, and the subject should be correlated with both oral and written composition. At this stage, however, the application of these principles will be found to be a very limited one. It is constant use and practice under never-failing watch and correction that makes good writers and speakers. In the earlier years of the pupils' course the application of direct authority is the most efficient corrective.

GEOGRAPHY.—Course of Form III. continued, with special attention to the commercial geography of Canada, Great Britain, and the United States. Observation of some of the more prominent constellations as the Dippers, Orion, Cassiopeia, and of planets visible in the early evening.

Climate: Distribution of light and heat; observation of sun's apparent movements through the year: light zones, how determined, names, boundaries, variations in length of day and night; isothermal lines, heat belts, general location, cause of variation from light zones, boundaries, movements; winds, cause, winds of torrid and temperate belts, land and sea breezes, peculiar winds, uses of winds; observation of the progress of storms by means of daily weather records and Government weather maps; ocean currents, general character, names and location of those of chief importance; rainfall, amount, how measured, regions of great rainfalls; deserts.

Eurasia: Topics similar to those relating to North America outlined in Form III.; comparison with North America.

South America, Africa, Australia, and the Continental Islands: A brief study with reference to the principal physical and political divisions, more particular attention being given to the component parts of the British Empire; resources, industries, productions; routes of travel and commerce; centres of population; conditions of the peoples.

ARITHMETIC.—Cancellation continued; measures, multiples. Fractional notation continued; vulgar and decimal fractions. Application of arithmetical processes to simple business transactions in percentage, as simple interest, commission, and insurance. Mental arithmetic. Accuracy, rapidity, and neatness of work should be kept in view.

NOTE.—The processes and problems should be such as find *direct* application in ordinary business life. Easy mensuration and the metric system (continued) may be added to this course for pupils who do not go beyond the Fourth Form. These subjects, however, will not be required at the High School Entrance examination.

WRITING.—Course of Form III. continued. Copy-books, or graded exercises prepared by the teacher. Pupils should be taught to be self-critical in respect to legibility, beauty, and rapidity.

BOOK-KEEPING (Optional).—Single entry; day book and ledger including personal and cash accounts. Business papers, with special attention to the mechanical details of business practice.

NOTE.—This course is intended for pupils who do not go beyond the Fourth Form.

ART.—The course of Form III. continued.

Adaptation of natural forms to purposes of decorative design.

Freehand perspective.

Simple geometrical drawing, combination of units of design in geometric patterns, combination of scrolls and geometric units for industrial and ornamental work.

Working drawings of type forms.

Simple geometrical problems.

MANUAL TRAINING (Optional).—Use of simpler wood-working tools, as saw, chisel, plane, rule, gauge. Exercises embodied in a complete useful model, and intended to give facility in the use of these tools, as laying out and truing up pieces to dimensions; cutting grooves; making of objects easily constructed and either useful or ornamental, as rulers, keyracks, boxes, brackets, brushholders, penracks, inkstands, school apparatus, etc. Short talks on the construction of tools and on the material used.

HOUSEHOLD SCIENCE (Optional).—The home, its functions, care of the house; various rooms and their uses; division of work in the care of house, preparation of food, cleaning methods, etc. Examination and study of equipment in classroom. Detailed study of methods of cooking with the object of acquiring facility of manipulation and measurement as well as a knowledge of the processes of cookery; boiling, simmering, steeping, steaming, broiling, pan-broiling, sauteing, frying, baking; each method to be illustrated by the cooking of one or more articles of food after the principles have been carefully studied. Fuels: coal, wood, gas, electricity, kerosene, alcohol, gasoline, coke; building and care of fires. Effects of heat upon common food materials, water, fresh and dried fruit, non-starchy vegetables, potatoes, legumes, breakfast cereals, flour (a study for thickening purposes only), milk, eggs, meat, fish. The composition and nutritive value of each food—a simple study only. Classification of foods.

Fruit preserving, canning, etc. Yeasts, combination and cooking of various food materials.

Planning, cooking, and serving a meal; marketing, cost; routine of work, table setting, serving; table manners.

Care of kitchen, utensils, etc.; dish washing; towels; special methods of cleaning tin, granite, iron, brass, wood.

Laundry studies, with simple equipment. Soft and hard water, hot and cold water; soap, soda, etc., their effect upon various fabrics; preparation of clothes for laundry; removal of stains; starching and ironing.

Course of Form III. in needlework continued; cutting and making simple garments.

PHYSIOLOGY AND HYGIENE.—General observation of bones and muscles. Elementary study of the organs of circulation and respiration and their functions. Ventilation; the relation of respiration to health with special reference to disinfectants, exercise, and clothing. Vocal

organs and their functions; cultivation and care of the voice. Relation of the nervous system to health and exercise. Continued study of the effects of stimulants and narcotics.

NATURE STUDY.—Course of Form III. continued. Animal life; relation of fish, birds, and wild animals to man; life histories of conspicuous and economic insects; organs and functions.

Plant life: Study of organs of plants and their functions; study of economic and wild plants from seed to fruit in the school garden, home garden, farm, and forest; weeds injurious to crops and methods of destroying them; buds and twigs; wood, rings, grain, and bark, uses, etc.

Observing local minerals and rocks, their properties and uses; experiments to show composition of soils and their relation to drainage, temperature, etc.; varieties of soils adapted to different crops; fertilizers, etc. Implements and tools used on the farm and in the household, mechanical principles implied in their construction.

The atmosphere; its composition; combustion, simple experiments, study of candle flame products; changes produced in the air by respiration; reciprocal relation of plants and animals as regards the atmosphere; impurities in air.

Gravity; air and liquid pressure; the barometer. Cohesion and adhesion, the nature of these forces; phenomenon of solution and diffusion; amorphous and crystalline forms of matter. Practical use of heat, steam, and electricity in connection with the study of industries.

Form V.

READING.—Intelligent and intelligible natural reading. The principles learned incidentally. Exercises in breathing, articulation, and vocalization.

GRAMMAR.—The principles of etymology and syntax, including the logical structure of the sentence, and the inflection and classification of words. The elementary analysis of words, with the most important prefixes and suffixes and Latin and Greek root-words.

NOTE.—At first the work should be confined to a thorough review of the course prescribed for the Fourth Form, and the practical value of the subject in connection with English composition should be emphasized. The more reflective study should be taken up later. The use of English grammar in teaching correct expression is, however, secondary to the insight it gives into the structure of our thinking and expression.

COMPOSITION.—Oral and written composition, chiefly narrative and descriptive. Letter writing. Oral and written reproductions or abstracts. Class debates. The systematic and careful application of the principles of good English to the correction of mistakes made by the pupils in speaking and writing. The main principles of composition (rhetoric) learned incidentally from the criticism of compositions, and systemized as the work proceeds.

LITERATURE.—Intelligent comprehension of suitable authors, both prose and poetry. Systematic oral reading in the class. Memorization and recitation of choice selections in prose and poetry.

NOTE 1.—The object of the course is the cultivation of a taste for good literature, not by minute critical study, but by reading at home and in

school aloud and silently, with due attention to the meaning, standard works which will appeal to the interest and quicken the imagination of the pupil. Such works should be chiefly narrative, descriptive, and dramatic.

NOTE 2.—In each of the Forms three or four books (both prose and poetry) should be read each year as class-work. Part of such books should be read at home or during study periods and reviewed in class with special reference to the more difficult passages. It is further recommended that, at the beginning of each school year, a short list should be made out under a few heads of such suitable books as may be obtained in the school, public or other library, and that each pupil be required to read during the year at least one under each head, in addition to those taken up in class. The work in literature should be systematically correlated with that in oral and written composition.

HISTORY.—The leading events of the history of Canada, followed by an outline of British history. Supplementary reading and interesting biographical sketches of persons famous in Canadian and British history. The history of the locality. The elements of the civil government of Great Britain and Canada, and the duties of citizenship.

NOTE 1.—The main purpose of the course at this stage is to train the pupils to grasp the leading events in their logical order, and to arouse an interest in historical reading. As soon as practicable, a beginning should be made in appreciating the logical connection of events. Pupils should be trained to use the school, public or other libraries for reference purposes and for supplementary reading.

NOTE 2.—The work in history should be systematically correlated with that in oral and written composition, and so much geography should be taken up as will secure intelligent comprehension of the topics dealt with.

ARITHMETIC AND MENSURATION.—*Arithmetic*.—Review of principles; measures multiples; the metric system; fractions (vulgar and decimal); contracted methods of computation; square root; percentage; commercial arithmetic, interest, discount, commission, etc. Mental arithmetic.

Mensuration.—The rectangle, the triangle, the parallelogram, the circle, the parallelopiped, the prism, and the cylinder.

NOTE.—The processes and problems in the commercial work should be such as find *direct* application in ordinary business life. Accuracy, rapidity and neatness of work should be kept in view.

ALGEBRA.—Elementary work, factoring, highest common factor and lowest common multiple, easy simple equations, easy fractions.

GEOMETRY.—Definitions; fundamental geometric conceptions and principles; use of simple instruments, compasses, protractor, graded rule, set-square; measurement of lines and angles, and construction of lines and angles of given numerical magnitude; accurate construction of figures; some leading propositions in Euclidean plane geometry reached by induction as a result of the accurate construction of figures; deduction also employed as principles are received and assured.

NOTE.—The course should emphasize physical accuracy as well as accuracy of thought; exactness in drawing lines of required length, in measuring lines that are drawn, in constructing angles of given magnitude, and in measuring angles that have been constructed. Where desired, the course in Euclid (See Appendix C.), may be taken up.

GEOGRAPHY.—The building up of the earth, the modern earth, the ocean, the atmosphere, life on the earth, the heavens, commerce.

For the details of the course, see Appendix A.

NOTE.—Excursions should be made where possible and desirable, especially in connection with the study of rocks, minerals, soils, and land formation of the district, and of the work of a stream, river or lake, all of which should be emphasized in due course.

ELEMENTARY SCIENCE.—An elementary course in Botany, Zoology, and Physics.

For details of the course see Appendix B.

NOTE 1.—The objects of the course are to train pupils in correct observation and deduction; to give, in connection with the instruction in geography, a fair knowledge of the world around them to those who will remain at school only a year or so; and to lay the foundation for the more detailed study of each subject in the case of those who will continue the work. The spirit of the Nature Study of the lower Forms should be retained, but the teacher should introduce a more systematic treatment of the subject with such organization of the material in botany and zoology as will lead to simple classification. The course should be correlated with geography, drawing, and composition.

NOTE 2.—Under each of the sub-heads in Appendix B, full details are given of the courses. The order of the topics, however, is merely a suggested one. In botany and zoology, the extent and the character of the details of each topic are left to the Principal and the teacher, and should be determined by the accessibility of the material and other local considerations. The course in these subjects should be practical throughout. Each pupil should possess a good lens and be taught how to use it. Approved methods of collecting and preserving botanical specimens and of keeping live animals suitable for study should be systematically followed. An herbarium and a museum of local specimens should be provided where practicable. The pupils should be encouraged to provide specimens from the locality. Much of the practical work, especially the observations, will necessarily be done out of doors by the pupils alone, under the direction of the teacher, or by the pupils, conducted by the teacher. The course in physics shall be experimental as far as possible, and the pupils should be encouraged to work at home and to prepare single apparatus. The amount of the apparatus required is at the discretion of the Public School Inspector.

NOTE 3.—Books for reference and for supplementary reading should be provided in the school library. Systematic written descriptions and drawing should be required throughout the course, and the exercises should be dated and presented for comparison and inspection, the work being systematically supervised by the teacher. In none of the science subjects shall notes be dictated by the teacher.

ART.—Course of Form IV. continued. Drawing from models in light and shade, and colour. Memory drawing in both outline and shade. Simple principles of freehand perspective.

COMMERCIAL SUBJECTS.—*Book-keeping and Business Papers.* Single entry and double entry. Use of journal-day-book, cash-book, bill-book, and ledger. Receipts, promissory-notes, drafts, orders, due-bills, deposit-slips, checks, bills, invoices, accounts; indorsement and acceptance and consequent liability.

Stenography.—The theory. Dictation, transcription.

Writing.—Correct position and movement; principles of letter-formation; graceful, legible business hand, etc.

Typewriting.—Copying documents, transcription of shorthand notes, manifolding, letter-press copying. Touch system recommended.

AGRICULTURE, MANUAL TRAINING, AND HOUSEHOLD SCIENCE.—By direction of the Board, and with the concurrence of the inspector and with a programme and a time-table approved by him, a short course in Agriculture may be taken up, chiefly in connection with suitable topics under Geography and Elementary Science. For suggestive details see the High School Special Lower School Course in Agriculture. Under the same conditions courses may also be provided in Manual Training and Household Science. For suggestive details, see the High School Special Lower School Courses in these subjects.

HIGH SCHOOL PROGRAMME OF STUDIES.

General.

MANNERS AND MORALS.—Throughout the High School course the teacher should incidentally, from current incidents, from lessons in literature, history, etc., occasionally by anecdotes and didactic talks, and by his own example as well as by precept, seek to give instruction in moral principles and practices and in good manners.

The following outline is suggested :—

Duties to oneself : Purity, health, nobility, self-control, self-reliance, generosity, truthfulness, good taste in dress, cultivation of will power, economy, moral value of work, etc.

Duties in school to teachers and to fellow pupils : Obedience, punctuality, neatness, order, etc.

Duties in the home : Respect for parents, consideration for brothers and sisters, the weak, the aged, etc.

Duties to the lower animals : Kindness, etc.

Duties to the people generally : Honesty, courtesy, charity, toleration, justice, etc.

Duties to our country : Patriotism, courage, honour, obedience to law, etc.

Manners : Proper conduct at home, at school, on the street, and in public places, at social gatherings, etc.

PHYSICAL CULTURE.—Throughout the High School course, a systematic and well-developed course of exercises in Drill and Calisthenics, both free and with apparatus, and in Gymnastics, when practicable, should be taken up in each of the sub-divisions (See Reg. 41). While dependent to some extent upon the accommodations and equipment, the exercises should always be suitable in character and frequency to the age and physical condition of individual pupils. The main object of the course is the symmetrical development of the body, securing at the same time strength and grace with correct and prompt obedience to the will. School games and sports should be systematically encouraged.

Lower School.

READING.—Intelligent and intelligible natural reading. The principles learned incidentally. Exercises in breathing, articulation, and vocalization.

ENGLISH GRAMMAR.—The principles of etymology and syntax, including the logical structure of the sentence and the inflection and classification of words. The elementary analysis of words, with the most important prefixes and suffixes and Latin and Greek root-words. An elementary knowledge of the formation of the sounds of the language, with their representation by means of the alphabet. An outline of the history of the development of the language.

NOTE.—The use of English grammar in teaching correct oral and written composition, though important especially when the principles of good English can be intelligently applied, is secondary to the insight it gives into the structure of our thinking and expression. For the first year the work should be confined to a thorough review and slight extension of the course prescribed for the Fourth Form of the Public Schools, and the practical value of the subject in connection with English composition should be emphasized. The intensive and more reflective study should be reserved for the later years of the course.

ENGLISH COMPOSITION.—Oral and written composition, chiefly narrative and descriptive. Letter writing. Oral and written reproductions or abstracts. Class debates. The systematic and careful application of the principles of good English to the correction of mistakes made by the pupils in speaking and writing. The main principles of composition (rhetoric) learned incidentally from the criticism of the compositions, and systematized as the work proceeds.

ENGLISH LITERATURE.—Intelligent comprehension of suitable authors, both prose and poetry. Systematic oral reading in class. Memorization and recitation of choice selections in prose and poetry.

NOTE 1.—The object of the course in the Lower School is the cultivation of a taste for good literature, not by minute critical study, but by reading at home and in school aloud and silently, with due attention to the meaning, standard authors whose words will quicken the imagination and present a strong element of interest. Such authors should be chiefly narrative, descriptive, and dramatic.

NOTE 2.—In each of the Forms, three or four books (both prose and poetry) should be read each year as class-work. Part of such books should be read at home or during study periods, and reviewed in class with special reference to the more difficult passages. It is further recommended that, at the beginning of each school year, a short list be made out for each Form, under a few heads, of such suitable works as may be obtained in the school, public, or other library, and that each pupil be required to read during the year at least one under each head in addition to those taken up in class. The work in literature should be systematically correlated with that in oral and written composition.

HISTORY.—The leading events of the history of Canada, followed by an outline of British history. Supplementary reading and interesting biographical sketches of persons famous in Canadian and British history and in Greek and Roman history. The history of the locality. The elements of the civil government of Britain and Canada, and the duties of citizenship.

NOTE 1.—The main purpose of the course at this stage is to train the pupils to grasp the leading events in their logical order, and to arouse an

interest in historical reading. As soon as practicable, a beginning should be made in appreciating the logical connection of events. Pupils should be trained to use the school, public and other libraries for reference purposes and for supplementary reading.

NOTE 2.—The work in history should be systematically correlated with that in oral and written composition, and so much geography should be taken up as will secure intelligent comprehension of the topics dealt with.

ARITHMETIC AND MENSURATION.—*Arithmetic*.—Review of principles; measures, multiples; the metric system; fractions (vulgar and decimal); contracted methods of computation; square root; percentage, interest, discount, commission, insurance, stock, exchange. Mental arithmetic.

Mensuration.—The rectangle, the triangle, the parallelogram, the circle, the parallelopiped, the prism, the cylinder.

NOTE.—The processes and problems in the commercial work should be such as find *direct* application in ordinary business life. Accuracy, rapidity, and neatness of work should be aimed at. Proofs of the more difficult formulæ in mensuration are not required. During the first year the study of arithmetic should be an intensive one, the work of the Public Schools being thoroughly reviewed. After the first year the stress should be placed upon algebra.

ALGEBRA.—Elementary work; factoring; highest common factor and lowest common multiple, fractions; simple equations of one, two and three unknown quantities; square root, cube root.

GEOMETRY.—Definitions; fundamental geometric conceptions and principles; use of simple instruments, compasses, protractor, graded rule, set-square; measurement of lines and angles, and construction of lines and angles of given numerical magnitude; accurate construction of figures; some leading propositions in Euclidean plane geometry, reached by induction as the result of the accurate construction of figures; deduction also employed as principles are reached and assured. The course in Euclid begun.

For the details of the course in Euclid, see Appendix C.

NOTE.—The introductory course in practical geometry, which is intended to be a six months' one, should emphasize physical accuracy of thought, exactness in drawing lines of required length, in measuring lines that are drawn, in constructing angles of given magnitude, and in measuring angles that have been constructed. The course in Euclid retains his common notions, regarding them from modern standpoints.

LATIN AND GREEK.—The elementary Latin book, including introductory work in the prose authors. The Greek book begun in the second year.

NOTE.—Throughout the courses in Latin and Greek, the main objects should be accuracy of knowledge of forms and syntax, accuracy of translation into idiomatic English, and the ability to translate at sight. Attention should also be given to pronunciation and reading aloud, and to the consideration of Latin and Greek words as the roots of English words.

FRENCH AND GERMAN.—The elementary French and German books, including introductory work in authors.

NOTE.—The work in French should at first be wholly without a text-book, for the training of the ear and tongue; grammar learned incidentally. Names of common objects, states, and actions. Memorization of suitable selections

from simple poetry. Reading anecdotes, short stories, and easy descriptions, with oral drill on the material read. After three or four months the systematic study of the elementary book should be begun, the work being chiefly oral. German should be begun in the same way the second year, but with greater apportionment of time, and more rapid progress. When desired, German may be begun first, being followed by French.

GEOGRAPHY.—The building up of the earth, the modern earth, the ocean, the atmosphere, life on the earth, the heavens, commerce.

For the details of the course, see Appendix A.

NOTE.—Excursions should be made where desirable, especially in connection with the study of rocks, minerals, soils, and land formation of the district, and of the work of a stream, river or lake, all of which should be emphasized in due course. Books of travel and other supplementary reading in geographical subjects should be supplied; also, when practicable, exhibits of the material and products characteristic of the countries studied. The school lantern should be used for illustration.

ELEMENTARY SCIENCE.—An elementary practical course in Botany, Zoology, Physics, and Chemistry.

For the details of the course, see Appendix B.

NOTE 1.—The objects of the course are to train pupils in correct observation and deduction, to give, in connection with the instruction in geography, a fair knowledge of the world around them to those who will not remain at school more than a few years, and to lay the foundation for the more detailed study of each subject in the case of those who will continue the work into the higher Forms. The spirit of the Nature Study of the Public Schools should be retained, but the teacher should introduce a more systematic treatment of the subject, with such organization of the material as will lead to simple classification and generalization. The course should be correlated with geography, drawing, and composition.

NOTE 2.—Under each of the subheads in Appendix B, full details are given of the course, which is intended to be at least a two years' one. The order of the topics, however, is merely a suggested one. In botany and zoology, the extent and the character of the details are left to the Principal and the teacher, and should be determined by the accessibility of the material and other local conditions. The courses in these subjects shall be practical throughout. Less attention should be given to the identification of plants than has hitherto been usual, and more to morphology, physiology, and ecology. When desirable, the agricultural applications of the subject should be emphasized. Each pupil should possess a good lens, and be taught how to use it. The compound microscope should be used regularly by the teacher for illustration. Approved methods of collecting and preserving botanical specimens and of keeping live animals suitable for study should be systematically followed. Much of the practical work especially the observations, will necessarily be done out of doors by the pupils alone, under the direction of the teacher, or by the pupils conducted by the teacher.

The courses in physics and chemistry shall be as far as possible experimental and the pupils should be encouraged to work at home and to prepare simple apparatus.

NOTE 3.—When practicable, there should be an aquarium, and every school should have an arboretum and a herbarium. A museum consisting of specimens illustrative of the courses should also be established. The pupils should be encouraged to provide specimens from the locality.

NOTE 4.—Floras and faunas should be provided in the library; also other works of reference, and the pupils should be encouraged to use them as supplementary reading, never as text-books or as substitutes for original work. Drawing and systematic written description should be required throughout the course, and the specimens should be dated and preserved in note books for comparison and inspection, the work being systematically

supervised by the teacher. In none of the science classes shall notes be dictated by the teacher. Every pupil should keep a calendar of the dates of (a) the unfolding of buds, (b) the flowering of plants, and (c) the first appearance of birds, insects, and other animals.

Some valuable publications on the subject of Nature Study and Elementary Science may be obtained free by teachers on application to the Department of Agriculture, Toronto.

ART.—Drawing from models in light and shade and in colour. Memory drawing in both outline and shade. Simple principles of freehand perspective. Inventive illustrative drawing. Ornamental design, using outline and colour, and introducing practical geometry and its application to design. Orthographic projection of type-forms and common objects. Isometric projection.

NOTE.—This course is intended to be a two years' one.

COMMERCIAL SUBJECTS.—*Bookkeeping and Business Papers*. Single entry and double entry. Use of the journal day-book, cash-book, bill-book, and ledger. Receipts, promissory-notes, drafts, orders, due-bills, deposit slips, checks, bills, invoices, accounts. Indorsement and acceptance, and consequent liability.

NOTE.—A minimum amount of two double entry sets and one single entry set, of about ten pages each, should be carefully worked out by each pupil in the course. Such sets should be the first work done in these sets, not copies of preliminary drafts. The course is intended to be a six months' one.

Stenography.—The theory. Dictation and transcription.

Writing.—Correct position and movement; principles of letter formation; graceful legible business hand.

Typewriting.—Copying documents, transcription of shorthand notes, manifolding, letter-press copying. Touch system recommended.

Middle School.

ENGLISH COMPOSITION.—Courses of the Lower School in oral and written narration and description continued. Exposition. Letter writing. Oral and written reproduction or abstracts. Class debates. The study of models of prose writing systematically taken up towards the close of the course.

NOTE.—The Debating and the Literary Society should supplement the work in this subject.

ENGLISH LITERATURE.—The intelligent and appreciative study of authors, both prose and poetry, including those prescribed for pass junior matriculation into the University of Toronto. Systematic oral reading in class. Supplementary reading provided by the pupils themselves and supplied from the school and the public or other library. Memorization and recitation of choice passages from the prescribed authors.

NOTE.—At this stage, the pupils should be able to begin to appreciate literature as such. Besides works of the same character as those taken up in the Lower School, other works of a subjective character may be added. The purpose and the spirit of the author and the merits of his thoughts and

style should now be moderately dealt with; his defects should not be emphasized. The chief object is still the cultivation of a taste for good literature, and the authors should be read partly in class and partly at home, both silently and aloud.

HISTORY.—*British History.* Great Britain and Canada from 1763 to 1885, with the outlines of the preceding periods of British History.

Ancient History.—General outlines of the history of Greece to the fall of Corinth, and of the history of Rome to the death of Augustus, with a brief outline of the art, literature, philosophy, and social life of the Greeks and the Romans.

The geography relating to the British and the Ancient History.

NOTE 1.—The details of the political history are not so important as the causes and the consequences of events, and the social life, literature, art, etc., of the peoples. In British (including Canadian) history the development of our political institutions should receive special attention.

NOTE 2.—As in the Lower School, the work in history should be correlated with that in oral and written composition as well as in geography. although not prescribed for the Middle School course or for any of the examinations, it is recommended that the beginnings of civilization and of the Eastern nations be studied in outline before the periods prescribed in ancient history are taken up. The great contemporary movements in the history of Europe should also be briefly discussed.

ALGEBRA.—The course in the Lower School reviewed and continued. Indices, surds; quadratics of one and two unknown quantities, the relation between their roots and co-efficients.

GEOMETRY.—The course in the Lower School reviewed. A selection of the leading propositions of Euclid but with modifications in method of proof. Exercises and deductions on the propositions of the syllabus, the constructions in Practical Geometry being such as naturally spring from the course in Geometry prescribed for the Middle School.

For the details of the course, see Appendix C.

LATIN AND GREEK.—Course in the Lower School continued. The special study of the texts prescribed for pass junior matriculation into the University of Toronto, with sight work.

FRENCH AND GERMAN.—Course in the Lower School continued. The special study of the texts prescribed for pass junior matriculation into the University of Toronto, with sight work.

CHEMISTRY.—Course of the Lower School continued. Experimental illustration of the most important properties of Hydrogen, Chlorine, Oxygen, sulphur, Nitrogen, Carbon, and their chief compounds, especially those of economic and industrial importance. Mixtures, solutions, chemical compounds, elements. Nomenclature. Laws of chemical combination. Combining weights, chemical formulæ and equations, with easy numerical examples.

PHYSICS.—Lower School courses reviewed. An experimental course defined as follows:

Heat.—Nature and sources of heat; thermometers; maximum density of water; relation between volume and the temperature of a gas (Charles' Law); absolute temperature; change of state; latent heat, specific heat; mechanical equivalents of heat, transmission of heat; simple problems.

Electricity.—Magnetism, laws of magnetic attraction and repulsion, phenomena and theories of magnetic induction, inclination and declination of the compass; chemical effects of the electric current, electrolysis of dilute acids and metallic salts, electroplating, electrotyping; storage cells; voltmeters and principle of their use; current induction and its general laws; transformer; induction coil; direct current dynamo; telephone, motor; simple motions of potential; Ohm's Law, shunts; electrical units; astatic and tangent galvanometers; rheostat, experimental determination of current strength, resistance, electromotive force; best arrangement of electrical generators under given conditions, the joule and the watt.

Sound.—Caused by vibrations; illustrations of vibrations, pendulums rods, strings membranes, manometric flames, plates, columns of air; propagated by waves; its velocity; determination of velocity; pitch; standard forks, acoustal $C=512$, musical $A=870$; intervals; harmonic scale; diatonic scale; equally tempered scale, vibration of air in open and closed tubes, with wave-length; resonators; nodes and loops; vibrations of strings and wires; reflection of sound.

Light.—Rectilinear propagation; image through a pin-hole; beam; pencil; photometry; shadow and grease-spot photometers; reflection and scattering of light; laws of reflection; images in plane mirrors; multiple images in inclined mirrors; concave and convex mirrors; drawing images; refraction; laws and index of refraction; total reflection; path through a prism; lenses; drawing image produced by a lens; simple microscope; dispersion and colour; spectrum; recombination of white light.

Upper School.

ENGLISH COMPOSITION AND RHETORIC.—Middle School course continued. Argumentation. Course still both oral and written. Letter writing. Class debates. Critical study of prose models. The principles of rhetoric systematically studied.

NOTE.—As in the Middle School, the Debating and the Literary Society should supplement the work in this subject.

ENGLISH LITERATURE.—The intelligent and appreciative study of authors, both prose and poetry, including those prescribed for honor junior matriculation into the University of Toronto. Systematic oral reading in class. Supplementary reading provided by the pupils themselves and, as in the Lower School, from the school and the public library. Memorization and recitation of choice passages from the prescribed authors.

NOTE.—At this stage the pupil should be able to read literature still more appreciatively; but the chief object continues to be the cultivation of a taste for good literature, and critical study should be subordinated thereto.

MEDIAEVAL AND MODERN HISTORY.—General outline of mediæval and modern European History, with special reference to British History. The geography relating to the history prescribed.

For the details of the courses in mediæval and modern history, see Circular D.

NOTE.—The subject should be dealt with as in the Middle School, but here, in particular, the comparative method should also be employed as far

as practicable. The continuous history of Great Britain and Ireland and of the colonies should be taken up concurrently with that of the other European States. It is recommended that in connection with English composition, each pupil should select one or more topics to which he will devote special attention, utilizing for the purpose the books of reference available in the school, public, and other libraries.

ALGEBRA.—Work of Middle School continued. Theory of divisors, ratio, proportion and variation, progressions, scales of notation, permutations and combinations, binomial theorem, interest forms, annuities, and sinking funds.

GEOMETRY.—The course in Geometry of the Middle School reviewed and continued. An introductory course in Co-ordinate Geometry of the point, the straight line, and the circle.

For the details of the course, see Appendix C.

TRIGONOMETRY.—Trigonometrical ratios with their relations to one another; sines, etc., of the sum and difference of angles with deduced formulæ. Use of Logarithms. Solution of triangles. Expression for the area of triangles. Radii of circumscribed, inscribed, and escribed circles.

LATIN AND GREEK.—Course of the Middle School in grammar and composition continued. The special study of the authors prescribed for honors at matriculation into the University of Toronto, with sight work.

FRENCH AND GERMAN.—Course of the Middle School in grammar and composition continued. The special study of the authors prescribed for honors at matriculation into the University of Toronto, with sight work.

PHYSICS.—An experimental course defined as follows:—

Mechanics.—Measurement of velocity; uniformity accelerated rectilinear motion; metric units of force, work, energy, and power; equilibrium of forces acting at a point; triangle, parallelogram, and polygon of forces, parallel forces; principle of moments; centre of gravity; laws of friction; numerical examples.

Hydrostatics.—Fluid pressure at a point; pressure on a horizontal plane; pressure on an inclined plane; resultant vertical pressure, and resultant horizontal pressure, when fluid is under air pressure and when not; transmission of pressure; Bramah's press; equilibrium of liquids of unequal density in a bent tube; the barometer; air pump; water pump, common and force; siphon.

NOTE.—The course in electricity for honor junior matriculation into the University of Toronto is included in the Middle School course. Special class provision may, however, be made for the subject in the Upper School.

CHEMISTRY AND MINERALOGY.—An experimental course defined as follows:—

Chemistry.—Chemical theory of the Lower School reviewed and continued. Chemical and physical reactions, rates of reactions, reversible reactions, chemical equilibrium. The practical study of the following elements, with their most characteristics compounds, having regard to Mendelejeff's classification of the elements, and some of the most important economic and industrial application: Hydrogen, Sodium, Potassium, Magnesium, Zinc, Calcium, Strontium, Barium, Boron, Aluminum,

Carbon, Silicon, Tin, Lead, Nitrogen, Phosphorus, Arsenic, Antimony, Bismuth, Oxygen, Sulphur, Fluorine, Chlorine, Bromine, Iodine, Manganese, Iron, Copper, Nickel.

Minerology.—General chemical composition of the earth's crust. Meaning of term mineral; crystalline state of matter; physical character of minerals, hardness, streak, lustre, specific gravity, studied from actual specimens. Meaning of terms, rock, ore. The rock-forming minerals, Calcite, Quartz, Orthoclase, Plagioclase, Muscovite, Biotite, Hornblende, Pyroxene, Olivine, studied from hand specimens. Examination of hand specimens of the following rocks: Igneous—Granite, Syenite, Diorite, Gabbro, Diabase, Basalt. Aqueous—Sandstone, Conglomerate, Shale, Limestone; Metamorphic—Marble, Gneiss, Slate, Schists. Veins—kinds, how formed, how filled.

Determination with the aid of simple mineral tables of the following: Magnetite, Hematite, Pyrite, Galena, Gypsum, Halite, Graphite, Mispickel, Pyrolusite, Stibnite, Zinc blende, Chalcopyrite. Occurrence of gold, silver, coal. Chief deposits of economic minerals in Canada.

NOTE 1.—The Lower School course in geology (under geography) should be reviewed in connection with the study of the minerals.

NOTE 2.—Many of the minerals in the above list can be found in any well developed gravel pit, a stone pile, or the glacial boulders scattered widely over Ontario. Pupils should be required to make excursions in the neighborhood of the school for the purpose of obtaining them and observing the geological formations.

NOTE 3.—The determination of the minerals shall be made by observation of their physical properties and by means of the blow-pipe.

BIOLOGY.—Zoology.—The practical study of the external form and of the prepared skeleton of the various types prescribed. Prepared dissections and, where necessary, models shall be used to convey an elementary knowledge of the internal structure of the types. The pupil must sketch such preparations to ensure his careful study of them.

The Fish: Any one of the common fresh water fishes of Ontario; special attention to the organs of locomotion, circulation, respiration. As several species are easily obtainable, this class may be employed for studying the principles of zoological nomenclature.

The Frog: Comparison with the fish as to the organs above mentioned. Observation of the development of the spawn of one or more Amphibia.

The Reptile: A turtle and a snake. Comparison of both with a lizard.

The Bird: Special attention to the plumage, the bill and feet, and the modifications of the skeletal, muscular, and respiratory systems in connection with aerial life. Study of birds in relation to agriculture.

The Mammal: Characters of the chief domesticated and wild mammals of Ontario, as well as the main facts of internal structure of one of the smaller forms (e.g. the rabbit). Comparison of the teeth and feet of the pig, horse, sheep, rabbit, dog, mole, bat.

The Crayfish as a type of the arthropods. Comparison of the external form of the crayfish with that of an insect (e.g. grasshopper, cricket, cockroach), also with that of a millipede and a spider. Insects injurious to vegetation; the methods of combating their attacks.

Unsegmented and segmented worms.

Fresh-water mussel and snail.

A fresh-water unicellular animal, such as an *Amœba* or *Paramecium*.

The natural habits of the various animals studied.

A general view of classification based upon comparison of the types studied.

NOTE.—When preferred, dissection of types may be substituted for the use of models and prepared specimens.

Botany.—The practical study of representatives of the flowering plants of the locality in which the school is situated, and representatives of the chief subdivisions of cryptogams, such as a fern, a lycopod, a horsetail, a liver-wort, a moss, a lichen, a mushroom and a chara, with a general view of classification. An elementary knowledge of the microscopic structure of the bean and the maize. Drawings and descriptions of parts of plants, and classification. Comparison of different organs, morphology of root, stem, leaves, hair, parts of the flower; reproduction of flowering plants, pollination, fertilization and the nature of fruits and seeds. Laboratory course in plant physiology, with studies of protoplasm, osmosis, absorption of food material; culture fluids, transpiration, digestion, respiration, growth, and movement. Common economic fungi (a collection to be made) with further study of fungous diseases.

NOTE.—A museum is a necessary adjunct of the study of biology. See note (3) under Elementary Science of the Lower School.

Special Lower School Courses.

NOTE.—The following courses are to be taken only when the staff, the equipment, and the accommodations are adequate.

Principals and School Boards may modify the details to suit the requirements of their localities, subject to the approval of the Minister of Education. See Reg. 39 (3) and (6).

I. COMMERCIAL SUBJECTS.

First Course.

BOOK-KEEPING.—Single entry and double entry. Use of journal, day-book, cash-book, bill-book and ledger, the first two as books of original entry, and cashbook with special columns for merchandise on the debtor side and for expenses on the creditor side; transactions, including discounts and renewals of notes and drafts, trade discounts, deposits in banks and the use of checks; changing from single entry to double entry, and from double entry to single entry; sets in simple partnership; statements of assets and liabilities and of profit and loss.

BUSINESS PAPERS.—Receipts, promissory notes, chattel notes, drafts, bills, invoices, credit invoices, accounts monthly statements financial statements, indorsement and acceptance and consequent liability.

PENMANSHIP.—Correct position and movement; principles of letter formation; graceful, legible business hand; ledger headings; figures; letter writing; addressing envelopes and parcels.

TYPEWRITING.—Copying documents, transcription of shorthand notes, tabular work, manifolding, letter-press copying. Touch system recommended.

STENOGRAPHY.—The theory. Dictation and transcription.

Second Course.

BOOK-KEEPING.—Single entry and double entry, and changing from one system to the other. Use of journal day book, invoice book, sales book, cash book, bill book and ledger, the first five as books of original entry; use of journal and cash book with various special columns; manufacturing, using time sheet and pay roll; commission business; shipments, consignments; banking, including deposits, withdrawals, discounts, collections; partnership and the sharing of profits and losses by various methods; practical treatment of freight, duties, discount, bank and bad debts accounts; division of merchandise and expense accounts into various departments. Financial statements; assets and liabilities, profit and loss trading account, income and expenditure, receipts and disbursements, comparative statements.

BUSINESS AND BUSINESS LAWS.—Forms of the first year, together with deposit receipts, warehouse receipts, lien notes, shipping bills, bills of lading, proxies, power of attorneys, time sheets, pay rolls, bank pass books, account sales.

Negotiable paper, discharge, dishonor and protest; negotiability and assignability; accommodation paper; statute of limitations; statute of frauds; money; interest; banking organization, business, note issue; partnership; crossed checks; collections of accounts; balance of trade, meaning and effect on exchange; liability as partners and shareholders; contracts—kinds, legality, parties, consideration; insurance, kinds of policies, duties of the insured; chattel mortgages and mortgages on real estate, definition, registration, limitation, assignment, discharge; searching the title of lands.

WRITING.—Course of the first year continued; acquisition of speed; marking boxes, barrels, etc.

STENOGRAPHY.—Course of the first year continued. Speed of 60, 80 and 100 words per minute; transcription at the rate of 15 words per minute should be attained.

TYPEWRITING.—Copying documents, transcription of shorthand notes, tabular work, manifolding, letter-press copying. Touch system recommended.

NOTE.—The commercial subjects, as outlined above, are intended to cover two years' work, with a minimum of a general education. If a good course is taken in English, mathematics, and science, with one or more of the languages added, the work should extend over three years.

Special provision may be made for commercial French and German, and geography.

II. AGRICULTURE.

REQUIREMENTS.—1. *Experimental plots*; 2. *School garden*; 3. *Arboretum*; 4. *Science laboratory*.

First Course.

1. THE SOIL.—Kinds of soil; heavy and light; warm and cold, sandy, clay, loamy, and humus; glacial, alluvial, marsh, and residual; characteristics of each, and the way each is formed. Local excursions for the study of soils.

SOIL WATER.—Uses of water in the soil; water capacity of different soils; capillarity and its importance; percolation of rain water; conservation of soil moisture and methods of conserving moisture; drainage and importance of removal of stagnant water.

FOOD MATERIALS IN THE SOIL.—How roots absorb; osmosis; relation of air to soil; need of air to roots; experiments in laboratory and in the plots.

2. THE PLANT.—The parts of the plant and their relations to the soil; light, and air; functions of the root, stem and leaf; germination of seeds of the common garden and farm plants, and the growth of the seedlings, propagation of plants by seeds, budding and grafting; fruits and seeds; weeds and weed-seeds.

How plants feed; air and soil food materials; photosynthesis; storage of plant food in various farm plants; annuals, biennials, and perennials of the farm.

The making and keeping of a garden; selection of seed and planting in experimental plots.

Second Course.

1. THE SOIL.—The First Course continued. Analysis of soils; the peculiar soil-properties which affect plant growth. Texture, coarse, open, loose, fine, hard, compact, stiff, mellow, porous, lumpy, retentive, leachy, etc. Tillage, different methods for different soils and climate; improvement of soils. Plant food in the soil; rotation of crops and the food requirements of each crop; systems of rotation; underdrainage; bacteria in the soil.

2. THE PLANT.—The First Course continued. The botany of the crops of the farm; the uses of the different crops; how harvested; how planted; good and poor seed and importance of selection of good seed; grasses and forage crops, their value and identification; vegetable crops; plant diseases. Forestry on the farm, and the common trees and shrubs; leguminous crops and their special value.

3. THE ANIMAL.—Resemblances and differences between plants and animals; physiology of animals; feeding and digestion; rations; breeds; poultry; excursions to stock farms in vicinity; care of animals; ventilation of stables; bacterial diseases.

III. MANUAL TRAINING.

No detailed course of study is prescribed. The following prescription of the character of the work should, however, be followed:—

1. MODELS.—In drawing up a set of models, exercises, or projects for any school, attention should be given to the following points:—

(1) The course should be suitable to the district and should have special reference to its occupations and industries.

(2) The models should be graduated in order of the difficulty of the tool operations necessary for their completion.

(3) Due provision should be made to allow of the expression of the individual thought of the student.

(4) The work should have a close and intimate relation to the general work of the school.

(5) When formulated, the course should not be regarded as fixed and final; but, from time to time, such changes should be made as greater experience and knowledge may render advisable.

(6) Each exercise should be capable of being performed wholly by the student, and the teacher should never apply a cutting tool to the model on which the boy is actually at work.

(7) The form and proportion of each model should be carefully studied, attention being paid to grace and beauty as well as utility.

(8) The course should be based upon exercises and not upon models. This will lead to variety, and the pupil may make any model he chooses provided it contain the exercises the teacher wishes him to learn.

2. WORKING DRAWINGS.—Particular attention should be paid to the preparation of working drawings by the pupil. These should be either full size or on a fairly large scale. Orthographic projections and isometric views should be used, and an exercise should not be commenced unless a fully dimensioned drawing has been made or is being made concurrently with the bench work. Correctly dimensioned drawings of various objects, of which the students themselves should take the measurements; freehand dimension sketches, to be afterwards transferred into working drawings, afford useful practice. Freehand sketching should also be used in making drawings of leaves, tree sections, tools, etc., and in completing curved portions of working drawings. In the more advanced classes, tracings and blue prints should be made.

A course in mechanical drawing should not be entirely restricted to the shop work exercises, as their natural order and sequence will not provide sufficient variety for the range of work necessary to give a grasp of the subject and its application to industrial pursuits. Practice should be given in the reading of drawings until they can be interpreted with accuracy and facility. Work in drawing must be done from the object. Great attention should be paid to lettering and dimensioning. The cultivation of the art of sketching an idea rapidly, to be afterwards worked out, will prove of immense benefit. Each pupil should use a note-book; and the use, care, and adjustment of the various instruments should be carefully taught.

3. MATERIALS.—Clear ideas should be acquired respecting the materials used, *e.g.*, the growth, structure and uses of different varieties of timber; its felling, seasoning, and conversion; warping, twisting, and checking, how caused and how counteracted; the nature and uses of the common iron ores; important iron and steel processes, etc. Various methods of finishing should be shown.

4. WORK IN WOOD AND METAL.—The practical work in wood or metal should consist of a series of models or exercises carefully graduated so as to teach the fundamental processes employed in working from the rough material to the finished product. The proper use of nails and screws should be explained and practised, and the various methods of jointing used in constructive work. Models need not be confined to one

material; combinations of wood and metal even in the same model often afford useful exercises. While the expression of the individual thought of the pupil may show itself in the formation of useful articles, it is not intended that the Manual Training room be turned into a workshop for the manufacture of school apparatus.

5. CONSTRUCTION AND USE OF TOOLS.—The construction and mode of use of the tools employed should be shown, and demonstrations illustrating the proper methods of sharpening and keeping them in good order should be given systematically throughout the course. Pupils should themselves be required to sharpen the edged tools they use, and the proper method of correcting errors in tools of precision such as winding strips, square, face-plate, and the turning of an oil or grindstone, etc., should also be shown and practised.

6. LATHE WORK.—Schools that possess lathes may alternate this work with ordinary bench work, and the products of the lathe should be used in the building up of articles made at the bench. A correct understanding of the accompanying tools, the shape they should take, and the condition they should be in for accomplishing the best work, should be given. The models should be designed with a view to acquainting the pupils with the methods of turning and finishing both hard and soft woods and metals, and the principles involved in face-plate turning and turning between centres. The use of the various lathe attachments and change wheels should be shown, and the different velocities necessary for various purposes clearly explained.

7. METAL WORKING.—Metal may be worked either hot or cold. Cold metal may take the form of bent iron work, and this may be graduated to suit the physical capacity of the pupils. In its more elementary forms the equipment necessary is simple and inexpensive, and the work may be made a valuable adjunct to the art teaching given in the school. The course in metal work should give a general knowledge of the working of iron and steel and of the possibilities and limitations of metal working. Work in hot metal demands more extensive equipment. In forging, the preparation of the fire is most important and instruction should be given as to its building and keeping up. The most important tool in all forge work is the hammer, and much attention should be paid to it. The fundamental operations in forging are few in number and may be taken up in the following order:—Drawing, bending, twisting, shouldering, upsetting, punching, welding, shaping brazing, and, for decorative work, veining, and modelling. Exercises in cold metal may be taken as follows: Simple filing, soldering, chipping and filing, rivetting, scraping, and fitting. Various small tools can be forged and properly tempered for use in the lathe.

8. DECORATION.—As a general rule decoration should be applied only to models that are soundly constructed. Various methods of preparing stains and their use for different purposes should be dealt with. Indenting and stamping, grove carving, chip carving, flat carving, low relief, and high relief may be employed according to the capacity of the pupil and the requirements of the object to be decorated. All schemes of decoration should first be sketched on paper or worked in clay. To stimulate originality, the unit may be given and the student encouraged to make new combinations, the copying of designs being as far as possible prevented.

9. **SYSTEM OF MEASUREMENT.**—Either system of measurement may be used, English or Metric; but as, in all scientific work, the latter is coming into general use, it is advisable in the higher classes, at any rate, at least to combine the systems.

NOTE 1.—In those cases where the pupils have not taken a course of constructive work in the Public School, the work will of necessity be of a simpler character than much of that suggested in the above scheme. Where possible a separate class should be formed of such pupils.

NOTE 2.—The graduates of each year should unite in constructing some piece of work to be left in the school as a memorial of the class.

IV. HOUSEHOLD SCIENCE.

First Year.

HYGIENE, SANITATION, AND COOKERY.—Personal hygiene, care of skin, clothing, physical habits, etc.; hygiene of the house, ventilation, location, sanitary surroundings.

Kitchen and its equipments, stoves, etc.; bed-room, bath-room, closets, etc.; household pests; disposal of waste. Food: its functions, classification, special value of each. Cooking: principles involved in the different methods employed, and application of these to different kinds of food.

Continuation of Public School Course Form-IV. in cookery; preparation of meals, cost, time for preparation, planning and serving a meal within a given cost.

NEEDLEWORK.—All kinds of hand sewing, including buttonholes, patching and darning. Talks on implements used. Study of fabrics. Growth of cotton and flax. Cultivation of silk worm and processes of manufacture. Demonstration of primitive methods of weaving. Basting and running stitches, back stitch, half-back stitch, combination stitch, overcasting, overhanding on folded selvedge edges, true bias, matching stripes, plain hemming, French hemming, joining bias strips, straight-way fell on flannel, herring-bone stitch, gussets, gathers and stitched band, hemmed band, chain and feather stitch, hem stitch, loop stitch, blind loops, buttonhole stitch, sewing on buttons, tapes, hemmed patch, overhand patch, flannel patch, slip stitch, stockinet darning, cashmere darning, mending from home and application of these stitches in making button bags, shoe bags, shoe holders, and in hemming towels, aprons, dressing doll.

BASKET AND RAFFIA WORK.—Source, kinds and use of wicker and raffia. Making table mats, napkin rings, dolls' hats, work baskets, porch mats, furniture beaters, etc.

Second Course.

HYGIENE, SANITATION AND COOKERY.—Review and elaboration of principles taught in the first year. Dietetics: preparation of food for invalids, diet for children, for infants, balanced rations. The house: furnishing with consideration of cost, comfort and good taste. Public hygiene: responsibility of the individual in prevention of disease. Home nursing and emergencies: furnishing and care of the sick-room, making

a bed, changing bed linen, bathing and care of a patient; ventilation of sick-room; treatment of burns, scalds, wounds, fainting, frost-bite, etc.; bandaging; administration of food and medicine; ferments; yeasts, mold, bacteria, etc.

LABORATORY WORK.—Food combinations, advanced cookery; serving and decoration of food; care of silver, brass, copper, nickel, marble, hardwood. Duties of the hostess in the entertainment of guests. Ethics of the home. Homemaking *versus* housekeeping, the home as a community. Relation of the home to the State. Influence of a well ordered home.

NEEDLE WORK.—Talks on materials suitable for underwear. Embroideries, laces, and other trimmings. Instruction in the use of patterns. Cutting, fitting, and making corset cover with French fell. Taking measurements and drafting patterns for drawers. Cutting out drawers. Making tucks and preparing the trimming. Putting tucks and insertion together. Gathering, stroking and putting on ruffles. Making French seams and placing placket gusset. Putting on yoke or band. Making button-holes. Drafting pattern for skirt. Taking measurements, cutting, fitting and making night-gown.

Threading, running, oiling, and cleaning of sewing machines. Use of attachments.

Application of sewing stitches in outlining, and Kensington stitch on doily or tray cover. Embroidering initials. Hemstitching. Fringing doily.

NOTE.—The course in household science is a two years' one; but, when the conditions render it desirable, it may be extended over a longer period.

Special Middle School Course.

ART SUBJECTS.

Principals and School Boards may modify the details of the following course in Art, to suit the requirements of their localities. See Reg. 39 (3) and (6):—

Advanced drawing from flowers, drapery, and natural objects, in black and white and in water color. Pen and ink drawing for illustrating purposes. Ornamental drawing on blackboard. Out-door sketching from nature in pencil, charcoal, and water colours. History of art.

Charcoal drawing and painting ornamental casts and antique statues. Modelling in clay. Ornamental design. Elementary practical geometry as far as necessary for geometric designs. Drawing conventional flowers, leaves, rosettes, etc., based on natural forms. Designs for floor cloths, wall-paper, wood and iron work. Tinting designs in water colours. The principles of design and anatomy of pattern.

Practical geometry. Projection of points, lines, and solids. Parallel and angular perspective.

Machine drawing. Use of instruments. Drawing details, bolts, nuts, screws, gear wheels.

Architecture. Elementary architectural design and decoration, plans, elevations, sections. Prospective architectural drawing in pen and ink and water colours. The different styles of architecture.

APPENDIX A.

GEOGRAPHY.

Following are the details of the course in Geography prescribed for the Fifth Form and the Continuation Classes of the Public Schools and for the Lower School of the High Schools :

Soils, stones, rocks, strata and their origin; nebular theory: stratified, unstratified, metamorphic rocks; elevation and depression of the crust of the earth, forming continents and oceans; periods in the earth's history in relation to Canada and to Ontario in particular; life on the earth, fossils. Forms and distribution of land masses, causes, theories regarding them; changes in land forms; agents of change, volcanoes, water, etc. Study of the common rocks, minerals and soils of the districts. Mountains, origin, growth, distribution, relation to mines, forests and climate; volcanoes and volcanic phenomena; plains and plateaus—Canada generally, Ontario and the North-West in particular; relation of Canada upheavals, subsidences, glaciation, moraines, gravel ridges, boulders and formations, to the continental areas of which they form a part.

Rivers and river valleys; lakes; coast features; industrial importance of streams, rivers, lakes; origin and growth of rivers, falls, and rapids; changes in courses with causes; old river courses, depression and elevation; erosion by rivers, transportation and deposition of sediment.

The ocean: Origin, distribution, depth, movements, currents, tides, waves, ocean bed, etc.

The atmosphere, composition, importance to life, aqueous vapor; heating of the earth; depth of atmosphere; high and low pressure, the barometers, isobars, etc.; movements of the air; winds, their causes, trade winds, anti-trade winds, periodic, variable, cyclones, anti-cyclones, thunder storms, tornadoes; clouds, rain, snow, dew, evaporation; climate, causes affecting it; former climatic conditions.

Life: Varieties, dependence upon climate, soil, etc. Plant life; typical forms in different zones, distribution; marine plants. Animal life; typical forms, terrestrial, aerial, marine; direct or ultimate dependence on plant life; distribution of forms. Man: Varieties, distribution, relation to other animal life and to natural and physical conditions.

The earth as a planet; the planets; the fixed stars; the celestial sphere; observations of some of the more prominent constellations; the solar system and its members; the earth, its size and shape, proofs of shape; circles on surface; latitude and longitude; zones; daily rotation on axis; proofs; day and night; yearly revolution; its orbit and ellipse, perihelion; aphelion, seasons; variations in length of day and night, measurement of time; unit of time; sun-dial; civil year; standard railway time of Canada and the United States; location of position by latitude and longitude; calculation of times and distances.

The moon: rotations; phases; different kinds of months; various eclipses of the sun and moon; umbra; penumbra; appearance through a telescope; absence of atmosphere, clouds, etc.

The sun: sun spots, solar heat, radiation, etc. Comets, meteors, nebulae, etc.; their probable nature, number, revolutions, etc.; darkness and coldness of space.

Important commercial highways and their relations to centres of population. Natural and manufactured products of the countries of the world, with their exports and imports. Internal commercial highways of Canada and the chief internal commercial highways of the United States. Relation between industrial and commercial centres and physical features; relation of soil and underlying rock formations to the products of the district, and occupations of the inhabitants. Water ways: their influence on population and settlement, their use as highways of commerce, with special reference to Canadian routes. Typical natural products of different zones. Commercial relations of Great Britain and her colonies, and of Canada and the United States. Forms of Government in the countries of the world and their relation to civilization. Relation between the characteristics of a people and their environment.

APPENDIX B.

ELEMENTARY SCIENCE.

Following are the details of the courses in Elementary Science. The first courses in Botany, Zoology, and Physics are prescribed for the Fifth Form of the Public Schools. Both the first and the second courses in Botany, Zoology, and Physics, and the course in Chemistry are prescribed for the Continuation Classes of the Public Schools and for the Lower School of the High Schools.

BOTANY.

First Course.—September to November.

The structure and functions of flower, leaf, stem, root, etc.; organs of the flower, their functions, pollination, fertilization. Uses of hairs, spines, prickles, tendrils, and petioles. The simpler fruits and the means of dispersion of seeds. Formation of tree buds; preparation for winter; annuals, biennials, perennials. The fall of fruits and leaves of deciduous and evergreen trees. The study and interpretation of the marks on trees and shrubs. Comparison of higher plants with higher animals; relation of each to food; means of obtaining and storing it; dependence of animals on plants.

April to June.

Relation of plants to light, moisture and heat; water as a solvent, circulation of plants, experiments; soluble and insoluble material in soils; importance of each class of material to the plant; uses of roots and leaves in absorbing food from soil and air, experiments. Struggle for light and moisture, germination of the seed, development of the parts; examples—bean, morning-glory, pumpkin, corn, wheat. The expanding of buds and the opening of the spring flowers. Objects of pruning trees, transplanting and thinning vegetables. Times of germination and flowering of common plants in their native situations. Propagation of offsets, runners,

tubers, slips, seeds, grafts, budding. Conditions governing the growth of the early wild flowers. Modifications of plant growth suitable to environment. Plant societies in different localities. Identification of plants with regular flowers.

Second Course—September to November.

Morphology of the composites and grasses. Identification of the simpler ones.

Plant societies continued; peculiarities of each which adapt it to its situation. Special study of weeds, means of controlling them. Morphology and habits of some typical ferns, as bracken fern, shield fern, moon-wort, sensitive fern. Morphology and habits of a mushroom, a polypore, a boletus, a puff-ball. Parasitism and saprophytism. Study of plant enemies and remedial treatment—the simpler forms. Comparison of spring and autumn flowers. Comparative study of fruits. Special study of leaf, its modifications and adjustments for securing a favorable light position; its importance in obtaining and elaborating food material; the part it plays in evaporation.

April to June.

Common orchard and forest trees. Special study of the coniferæ, the bud; form, permanence and phyllotaxy of leaves, flowers; comparison of twigs and wood with those of other trees. Comparative study of pith and cortical layers. Distinction between endogen and exogen. Meaning, significance, and methods of cross fertilization. Man's influence on plants. Plant physiology, elementary and experimental; chlorophyll; movements of gaseous and liquid nutriments and waste products. Morphology of complex in florescences. Study of the fungi continued. Economic uses of plants, food, clothing, ornament, medicine, rubber, tea, spices, etc. General view and comparison of the characteristics of the frogs, newts, lizards, turtles, and snakes of the locality.

ZOOLOGY.

First Course—September to November.

Relation of insects to flowers. Study of grasshopper, potato-beetle, tomato-worm, house-fly, spider, centipede. The life history of at least two insects having complete metamorphosis. Collection of caterpillars infesting common plants, for observation of their metamorphosis. Recognition of some of our common birds; the relation to their habits of the structure of bills, legs, feet, wings, and nests, the arrangement of toes, and the color of feathers and eggs (aquatic, terrestrial, aerial); times of their migrations.

April to June.

The life history of the frog. Continuation of the study of the birds; especially in regard to their methods of obtaining food and nesting. Life

history and habits of any common economic insects, such as the tent-caterpillar, the cabbage-butterfly, the lady-bird, or other predacious beetle. Familiarity with the names and general appearance of the common fishes, frogs, newts, lizards, turtles, and snakes of the locality.

Second Course.—September to November.

The mammalia, chief characteristics. Our native Canadian mammals, their adaptation to our climate, their coloration, docility, habits, food, enemies. Modifications for aerial life (bat, flying-squirrel), arboreal life (squirrel), subterranean (wood-chuck, mole), aquatic (beaver, muskrat). Herbivorous and carnivorous animals, peculiarities of each. Adaptation of the fish, the frog, the bird, the mammal, to their habits of life. Homologies of fins, scales, etc. Comparison of the teeth and integuments of a few typical animals. Adaptation of animals for securing food, avoiding enemies. Preparation of animals for winter.

April to June.

The food supply of birds and insects; those beneficial or injurious. Special study of the bills and feet of birds and of the mouths and wings of insects. Distinction between biting and sucking insects. Life history of any two of the following: carpet beetle, scale insect, saw-fly, codling-moth, mosquito, pea-weevil; rearing the insects to study their metamorphosis; observation of conspicuous orchard or garden pests of the season, with protective treatment of plants. Economic uses of animal products; silk, wood, fur, leather, etc. General view and comparison of the larger classes of animals taken up in the course.

PHYSICS.

First Course.—November to April.

Forms of matter: solids, liquids, gases; different states of the same kinds of matter; crystalline and amorphous conditions; theory of constitution of matter. Physical and chemical change. Simple and compound substances. Metric units and standards of length, area, volume, weight, mass density; experiments in measurements with use of instruments, such as rule, balance, burette, caliper. Properties of solids. Properties of liquids, transmission of pressure by liquids; illustrations, construction and uses of hydraulic press. Relation of pressure to depth and density; pressure at a point equal in all directions; buoyancy, and flotation. Properties of gases, weight, elasticity, atmospheric pressure, barometer; expansive force of gas, with applications, as air cushion, bicycle tire, football, compressed air motor, air gun, etc.; relation between the volume and the pressure of a gas (Boyle's law). Construction and use of air pump, common pump, force pump, condenser, (as bicycle pump); buoyant force of gases. Solution, diffusion; part played by these processes in nature. Specific gravity; common methods of finding specific gravities of solids, liquids, and gases.

Second Course.—November to April.

Experiments illustrating the transformation of other forms of energy into heat; experiments to illustrate the expansion of solids, liquids, and gases by heat; distinction between temperature and heat. Methods of measuring the change of temperature, with description of Centigrade and Fahrenheit thermometers; change of state, phenomena of fusion, ebullition, evaporation, liquefaction and solidification; latent heat; methods of transference of heat; conduction, practical methods of heat insulation, principle of Davy's safety lamp, convection currents; methods of heating and ventilating houses.

Lode-stone, magnetic attraction; magnetization and demagnetization; polarity; magnetic induction; earth's inductive influence; construction and practical use of the mariner's compass and dipping needle; geographical and magnetic poles; construction of simple voltaic cells; chemical effects of the electric current, decomposition of water by electricity; magnetizing effects of the electric current; the construction of an electromagnet, with some of its more common practical applications, as electric bell, telegraph, and telephone; heating and lighting effects of the current; arc and incandescent lamps.

Nature and propagation of sound; principles of construction of some of the more common musical instruments, as piano, violin, harp, horn, and organ; reflection of sound, echoes; musical tones; pitch and quality.

Nature and propagation of light, simple experiments illustrating the reflection and refraction of light; the prism, the dispersion of light, colour.

CHEMISTRY.

Oxygen: Preparation, properties; oxidation, examples; combustion; reduction; dependence of organic world on oxygen. Water: decomposition by electricity, common impurities, tests. Hydrogen: preparation and properties. Ammonia: preparation, properties, economic uses. Carbon: forms, occurrence, properties, and uses; carbon dioxide, preparation by combustion in air, occurrence in the atmosphere, preparation from limestone, properties, comparison with air, relation to plant and animal life; carbonic acid. Limestone: forms, occurrence; lime and its manufacture; action of water on quick lime; action of acids on limestone; other carbonates; mortar; building stone, animal shells, uses of limestone and its product. Air: separation of oxygen from nitrogen; properties of the latter. Acids, basis, salts, distinguishing characteristics.

APPENDIX C.

I. GEOMETRY.—*Lower and Middle Schools.*

Following are the details of the course in Euclid prescribed for the Lower and Middle Schools of the High Schools. The first thirteen of the constructions and the first nineteen of the theorems are prescribed for candidates for District Teachers' non-professional Certificates, in addition to the Practical Geometry of the Lower School.

A.—CONSTRUCTIONS.

Construct a triangle with sides of given lengths.

To construct an angle equal to a given rectilineal angle.

To bisect a given angle.

To bisect a given straight line.

To draw a line perpendicular to a given line from a given point in it.

To draw a line perpendicular to a given line from a given point not in the line.

Locus of a point equidistant from two given lines.

Locus of a point equidistant from two given points.

To draw a line parallel to another, through a given point.

To divide a given line into any number of equal parts.

To describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given angle.

On a given straight line to describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To find the centre of a given circle.

From a given point to draw a tangent to a given circle.

On a given straight line to construct a segment of a circle containing an angle equal to a given angle.

From a given circle cut off a segment containing an angle equal to a given angle.

In a circle to inscribe a triangle equiangular to a given triangle.

To find locus of centres of circles touching two given lines.

To inscribe a circle in a given triangle.

To describe a circle touching three given straight lines.

To describe a circle about a given triangle.

About a given circle to describe a triangle equiangular to a given triangle.

To divide a given line similarly to another given divided line.

To find the fourth proportional to three given lines.

To describe a polygon similar to a given polygon, and with the corresponding sides in a given ratio.

To find the mean proportional between two given straight lines.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To describe a polygon of given shape and size.

B.—THEOREMS.

The sum of the angles of any triangle is equal to two right angles.

The angles at the base of an isosceles triangle are equal, with converse.

If the three sides of one triangle be equal, respectively, to the three sides of another, the triangles are equal in all respects.

If two sides and the included angle of one triangle be equal to two sides and the included angle of another triangle, the triangles are equal in all respects.

If two angles and one side of a triangle be equal to two angles and the corresponding side of another, the triangles are equal in all respects.

If two sides and an angle opposite one of these sides be equal, respectively, in two triangles, the angles opposite the other pair of equal sides are either equal or supplemental.

The sum of the exterior angles of a polygon is four right angles.

The greater side of any triangle has the greater angle opposite it.

The greater angle of any triangle has the greater side opposite it.

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base, with converse.

If a transversal fall on two parallel lines, relations between angles formed, with converse.

Lines which join equal and parallel lines towards the same parts are themselves equal and parallel.

The opposite sides and angles of a parallelogram are equal and the diagonal bisects it.

Parallelograms on the same base, or on equal bases, and between the same parallels, are equal.

Triangles on the same base, or on equal bases, and between the same parallels are equal.

Triangles equal in area, and on the same base, are between the same parallels.

If a parallelogram and a triangle be on the same base, and between the same parallels, the parallelogram is double the triangle.

Expressions for area of a parallelogram, and area of a triangle.

The complements of the parallelograms about the diagonal of any parallelogram are equal.

The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides.

If a straight line be divided into any two parts, the sum of the squares on the parts, together with twice the rectangle contained by the parts, is equal to the square on the whole line.

The square on a side of any triangle is equal to the sum of the squares on the two other sides + twice the rectangle contained by either of these sides and the projection of the other side on it.

If more than two equal straight lines can be drawn from the circumference of a circle to a point within it, that point is the centre.

The diameter is the greatest chord in a circle, and a chord nearer the centre is greater than one more remote. Also the greater chord is nearer the centre than the less.

The angle at the centre of a circle is double the angle at the circumference on the same arc.

The angles in the same segment of a circle are equal, with converse.

The opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles, with converse.

The angle in a semicircle is a right angle; in a segment greater than a semicircle less than a right angle; in a segment less than a semicircle greater than a right angle.

A tangent is perpendicular to the radius to the point of contact; only one tangent can be drawn at a given point; the perpendicular to the tangent at the point of contact passes through the centre; the perpendicular from centre on tangent passes through the point of contact.

If two circles touch, the line joining the centres passes through the point of contact.

The angles which a chord drawn from the point of contact makes with the tangent, are equal to the angles in the alternate segments.

The rectangles under the segments of intersecting chords are equal.

If $OA \cdot OB = OC^2$, OC is a tangent to the circle through A , B and C . Triangles of the same altitude are as their bases.

A line parallel to the base of a triangle divides the sides proportionally, with converse.

If the vertical angle of a triangle be bisected, the bisector divides the base into segments that are as the sides, with converse.

The analogous proposition when the exterior angle at the vertex is bisected, with converse.

If two triangles are equiangular, the sides are proportional.

If the sides of two triangles are proportional, the triangles are equiangular.

If the sides of two triangles about equal angles are proportional, the triangles are equiangular.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplemental.

Similar triangles are as the squares on corresponding sides.

The perpendicular from the right angle of a right-angled triangle or the hypotenuse divides the triangle into two which are similar to the original triangle.

In equal circles angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

The areas of two similar polygons are as the squares on corresponding sides.

If three lines be proportional, the first is to the third as the figure of the first to the similar figure on the second.

Questions and easy deductions on the preceding constructions and theorems.

NOTE.—In the formal deductive geometry modifications of Euclid's treatment of the subject will be allowed, though not required, as follows:—

The employment of the "hypothetical construction."

The free employment of the method of superposition, including the rotation of figures about an axis, or about a point in a plane.

A modification of Euclid's parallel postulate.

A treatment of ratio and proportion restricted to the case in which the compared magnitudes are commensurable.

II. GEOMETRY.—*Upper School.*

Following are the details of the course in Geometry prescribed for the Upper School of the High Schools.

A.

Exercises on the course prescribed for the Middle School, with special reference to the following topics—Loci; Maxima and Minima; The System of Inscribed, Escribed and Circumscribed Circles of a Triangle with metrical relations; Radical Axis.

B.—SYNTHETIC GEOMETRY.

The following additional propositions in Synthetic Geometry, with exercises thereon:—

To divide a given straight line internally and externally in medial section.

To describe a square that shall be equal to a given rectilinear figure.

To describe an isosceles triangle having each of the angles at the base double of the third angle.

To inscribe a regular pentagon in a given circle.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If ABC be a triangle, and A be joined to a point P of the base such that $BP : PC = m : n$, then $n AB^2 + m AC^2 = (m+n) AP^2 + n BP^2 + m PC^2$.

In a right-angled triangle the rectilinear figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the two other sides.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the two rectangles contained by its opposite sides.

Two similar polygons may be so placed that the lines joining corresponding points are concurrent.

If a straight line meet the sides BC , CA , AB , of a triangle ABC in D , E , F respectively, then $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$, and conversely. (Menelaus' Theorem.)

If straight lines through the angular points A , B , C of a triangle are concurrent, and intersect the opposite sides in D , E , F respectively, then $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$, and conversely. (Ceva's Theorem.)

If a point A lie on the polar of a point B with respect to a circle, then B lies on polar of A .

Any straight line which passes through a fixed point is cut harmonically by the point, any circle, and the polar of the point with respect to the circle.

In a complete quadrilateral each diagonal is divided harmonically by the other two diagonals, and the angular points through which it passes.

C.—ELEMENTARY ANALYTICAL GEOMETRY.

Axes of co-ordinates. Position of a point in plane of reference.

Transformation of co-ordinates,—origin changed, or axes (rectangular) turned through a given angle.

$$\pm 2A = x_1(y_2 - y_3) + \dots + \dots$$

Co-ordinates of point dividing line joining $P_1 (x_1, y_1)$ and $P_2 (x_2, y_2)$ in ratio $m : n$ are

$$x = \frac{m x_2 + n x_1}{m + n}, y = \frac{m y_2 + n y_1}{m + n}.$$

$$(P_1 P_2)^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

Equations of straight lines.

$$\left. \begin{aligned} \frac{x - x_1}{x_1 - x_2} &= \frac{y - y_1}{y_1 - y_2} \\ \frac{x}{a} + \frac{y}{b} &= 1 \end{aligned} \right\} \text{Line defined by two points} \\ \text{through which it passes.}$$

$$\left. \begin{aligned} \frac{x - a}{\cos \theta} &= \frac{y - b}{\sin \theta} = r. \\ y &= m x + b. \\ y &= m (x - a). \\ x \cos a + y \sin a &= p. \end{aligned} \right\} \text{Line defined by one point} \\ \text{through which it passes,} \\ \text{and by its direction.}$$

General equation of 1st degree, $A x + B y + C = 0$, represents a straight line.

Any line through (x_1, y_1) is

$$A (x - x_1) + B (y - y_1) = 0.$$

If θ be angle between $A x + B y + C = 0$ and $A' x + B' y + C' = 0$, then

$$\tan \theta = \frac{A' B - A B'}{A A' + B B'}$$

Condition of \perp rity $A A' + B B' = 0$.

Condition of \parallel ism, $\frac{A}{A'} = \frac{B}{B'}$.

Distance from (a, b) to $A x + B y + C = 0$, in direction, whose direction cosines are (l, m) is

$$-\frac{A a + B b + C}{A l + B m}$$

\perp r distance from (a, b) on $A x + B y + C = 0$

$$\pm \frac{A a + B b + C}{\sqrt{A^2 + B^2}}.$$

THE CIRCLE—

Equations in forms :

$$\begin{aligned} x^2 + y^2 &= r^2. \\ (x - a)^2 + (y - b)^2 &= r^2. \\ y^2 &= 2 r x - x^2. \end{aligned}$$

General equation $x^2 + y^2 + 2 A x + 2 B y + C = 0$,
or $(x + A)^2 + (y + B)^2 = A^2 + B^2 - C$,

represents a circle with centre $(-A, -B)$ and radius

$$\sqrt{A^2 + B^2 - C}.$$

Tangent at (x', y') to $x^2 + y^2 = r^2$, is $x x' + y y' = r^2$.

Normal is $\frac{x}{x'} = \frac{y}{y'}$.

Tangent in form.

$$y = m x \pm r \sqrt{1 + m^2}.$$

Pole being (x', y') , polar is $x x' + y y' = r^2$.

If pole move along a line, polar turns about pole of that line.

Square of tangent from

$$\begin{aligned} (x', y') \text{ to } x^2 + y^2 + 2 A x + 2 B y + C &= 0 \\ \text{is } x'^2 + y'^2 + 2 A x' + 2 B y' + C. \end{aligned}$$

Radical axis of

$$\begin{aligned} x^2 + y^2 + 2 A x + 2 B y + C &= 0 \\ x^2 + y^2 + 2 A' x + 2 B' y + C' &= 0 \end{aligned}$$

Easy exercises on the preceding propositions.

APPENDIX D.

For the Syllabus in Mediæval and Modern History, see Circular No. 11.

PUBLIC SCHOOLS.

DUTIES OF TEACHERS.

(From the Public Schools Act of 1901. Sections 80, 81, 97 and 121.)

It shall be the duty of every teacher of a Public School :

1. To teach dilligently and faithfully all the subjects in the Public School Course of Study ; to maintain proper order and discipline in the school ; to encourage the pupils in the pursuit of learning ; to inculcate by precept and example, respect for religion and the principles of Christian morality, and the highest regard for truth, justice, love of country, humanity, benevolence, sobriety, industry, frugality, purity, temperance and all other virtues ;

2. To use the English language in the instruction of the school and in all communications with the pupils in regard to discipline and the management of the school, except where impracticable by reason of the pupil not understanding English. Recitations requiring the use of a text-book may be conducted in the language of the text-book ;

3. To see that the schoolhouse is ready for the reception of pupils at least fifteen minutes before the time of opening in the morning, and five minutes before the time of opening in the afternoon, to call the roll every day according to the register prescribed by the Educa-

tion Department; to enter in the visitors' book visits made to the school; to give the Inspector, trustees and visitors access, at all times, to the register and visitors' book; and to deliver the register, the schoolhouse key and other school property in his possession to the corporation employing him on demand, or when his agreement with such corporation has expired;

4. To classify the pupils strictly according to the course of study prescribed by the Education Department; to conduct the school according to a time-table accessible to pupils and visitors; to prevent the use by pupils of unauthorized text-books; to attend regularly the teachers' institutes in the inspectoral division; to notify the trustees and inspector of absence from school, through illness or other unavoidable cause; and to make at the end of each school term, and subject to revision by the Inspector, such promotions from one class or form to another as he may deem expedient;

5. To hold during each half year a public examination of the school, and to give due notice thereof to the trustees, to any school visitors who reside in the school section, and through the pupils, to their parents or guardians, and to hold such other examinations as may be required by the Inspector for the promotion of pupils, or for any other purpose as the Inspector may direct;

6. To furnish the Minister of Education, or the School Inspector, with any information which it may be in his power to give respecting the condition of the school premises, the discipline of the school, the progress of the pupils, or any other matter affecting the interests of the school, and to prepare such reports of the corporation employing him as are required by the Education Department;

7. To give assiduous attention to the health and comfort of the pupils, to the cleanliness, temperature and ventilation of the school-rooms, to the care of all maps, apparatus and other school property, to the preservation of shade trees and the orderly arrangement of the playgrounds, and to report promptly to the trustees and municipal health officer the appearance of any infectious or contagious disease in the school, or the unsanitary condition of outhouses and surroundings;

8. To refuse admission to the school of any pupil affected with, or exposed to smallpox, scarlatina, diphtheria, whooping cough, measles, mumps, or other contagious disease or consumption until furnished with a certificate of a physician or of a health officer to the effect that all danger from exposure to contact with such pupil has passed away;

9. To suspend any pupil guilty of persistent truancy, violent opposition to authority, habitual neglect of duty, the use of profane or improper language or conduct injurious to the moral tone of the school, and to notify the parent or guardian of the pupil, and the trustees, of such suspension. The parent or guardian of any pupil suspended may appeal against the action of the teacher to the trustees, who shall have power to consider such appeal and remove, confirm or modify such suspension. R.S.O. 1897, c. 292, s. 76.

AGREEMENTS.

1. All agreements between trustees and teachers shall be in writing, signed by the parties thereto, and shall be sealed with the seal of the corporation.

2. Any teacher who wilfully neglects or refuses to carry out his agreement, shall, on the complaint of the trustees, be liable to the suspension of his certificate by the Inspector under whose jurisdiction he may be for the time being.

3. No person engaged to teach a Public School shall be deemed a qualified teacher who does not at the time of entering into an agreement with the trustees, and during the whole period of such agreement, hold a legal certificate of qualification.

4. Any teacher who enters into an agreement with a board of trustees for one year, and who serves under such agreement for three months or over, shall be entitled to be paid his salary in the proportion which the number of days during which he has taught bears to the whole number of teaching days in the year.

5. Every teacher shall be entitled to his salary during sickness, certified by a physician, for a period not exceeding four weeks for the entire year; this period may be increased at the pleasure of the trustees.

6. If at the expiration of a teacher's agreement with a board of trustees his salary has not been paid in full, the salary shall continue to run at the rate mentioned in the agreement until paid, provided always that an action shall be commenced within three months after the salary is due and payable by the trustees.

7. All matters of difference between trustees and teachers, in regard to salary or other remuneration under a valid agreement, shall, whatever may be the amount in question, be brought in the Division Court of the division where the cause of action arose, subject to appeal, as provided by this Act. R.S.O. 1897, c. 292, s. 77.

AUTHORIZED BOOKS.

1. Any authorized text-book in actual use in any Public or Model School may be changed by the teacher of such school for any other authorized text-book in the same subject on the written approval of the trustees and the Inspector, provided always such change is made at the beginning of a school term, and at least six months after such approval has been given.

2. In case any teacher negligently or wilfully permits any unauthorized text-book to be used by the pupils of his school, he shall for each such offence, on conviction thereof before a Police Magistrate or Justice of the Peace, be liable to a penalty payable to the municipality for Public School purposes, not exceeding \$10, together with costs, as the Police Magistrate or Justice may think fit. R.S.O. 1897, c. 292, s. 92.

GENERAL PROHIBITIONS.

1. No teacher, trustee, Inspector, or other person officially connected with the Education Department, the Normal, Model, Public, or High Schools or Collegiate Institutes, shall become or act as agent for any person or persons to sell, or in any way to promote the sale for such school apparatus, furniture or stationery, or shall receive compensation or other remuneration or equivalent for such sale, or for the promotion of sale in any way whatsoever.

2. Any teacher who refuses to give up to the school trustees possession of any visitors' book, school register, school house key or any other school property in his possession, shall not be deemed a qualified teacher until restitution is made, and shall also forfeit any claim which he may have against the said trustees. R.S.O. 1897, c. 292, s. 115.

DUTIES OF PUPILS.

(From the Regulations of 1904.)

1. Every pupil registered in a Public School shall attend punctually and regularly every day of the school year in which his name is so registered. He shall be neat and cleanly in his person and habits, diligent in his studies, kind and courteous to his fellow pupils, obedient and respectful to his teacher, and shall submit to such discipline as would be exercised by a kind, firm and judicious parent.

2. Every pupil on returning to school after absence from any cause shall give orally or in writing to the teacher, a proper reason for his absence. A pupil may retire from school at any hour during the day at the request, either oral or written, of his parent or guardian. A pupil may be suspended who fails or neglects to provide himself with the text-books or other supplies required in his course of study, or to pay the fees imposed for such purpose by the trustees.

3. Every pupil shall be responsible to the teacher for his conduct on the school premises or on the way to or from school, except when accompanied by his parents or guardian or by some person appointed by them on their behalf. Any pupil who injures or destroys school property or furniture may be suspended until the property or furniture destroyed or injured is made good by the parent or guardian of such pupil.

PUBLIC SCHOOLS.

SCHOOL TERMS AND ORGANIZATION.

1. Unless otherwise directed by the trustees, the pupils attending every Public School shall assemble for study at nine o'clock in the forenoon, and shall be dismissed not later than four o'clock in the afternoon. One hour at least shall be allowed for recreation at mid-day, and ten minutes during the forenoon and afternoon terms, but in no case shall the hours of study be less than five hours per day including the recess in the forenoon and afternoon, provided always the trustees may reduce the hours of study for the pupils in the First and Second Forms.

2. Pupils not registered in a Day School may attend a Night School from the 1st of October until the 31st of March. The hours of study in the Night School shall not exceed $2\frac{1}{2}$ hours per session. Pupils shall not be admitted to a Night School who are under fourteen years of age or who attend school during the day. Night Schools shall be subject to the same regulations as Public Schools, with respect to the discipline of pupils, the duties and qualifications of teachers, and the use of text-books.

3.—(1) The course of study for Public Schools shall be taken up in five Forms as hereinafter set forth, and pupils shall be classified by the

teacher with respect to their attainments in all the subjects of the Form to which they are assigned or from which they are to be promoted.

(2) The amount of time to be given to any class is to be determined by the teacher, who shall be guided in this matter by the Inspector.

(3) Pupils who have passed the High School Entrance examination and such other pupils as are considered qualified by the teacher and Inspector shall be entitled in both Rural and Urban Schools to receive instructions in the subjects of the Fifth Form, provided that, in a municipality having a High School, if resident pupils of the High School are not charged fees for the first year, it will not be deemed obligatory for the Public School Board to have a Fifth class.

4.—(1) All the subjects prescribed for Forms I.-IV. of the Public School Course are obligatory, except where otherwise specified in the Programme of Studies. No deviation from this rule is permissible without the concurrence of the Inspector, who shall also decide as to the optional subjects.

(2) The following subjects of the Fifth Form Course of Study are obligatory: Reading, Literature, Grammar, Composition, History, Geography, Writing, Arithmetic and Mensuration, and Elementary Science. From the other subjects of this Form, Boards of Trustees may select with the concurrence of the Inspector, such subjects or such parts of the courses therein, as may, in their judgment, suit the requirements of their localities.

(3) When, from any cause, teachers properly prepared to teach the courses in Art, Constructive Work, Clay Modelling, Elementary Science, and Nature Study are not available, the Inspector shall authorize such modifications of the courses in these subjects as he may deem expedient.

(4) Classes in Latin, Greek, French or German may be provided in Fifth Forms or Continuation Classes, with the concurrence of the Inspector, and with a time-table approved by him. Teachers of these subjects shall hold at least a second-class certificate and have passed a Departmental or a University examination in the language they undertake to teach.

5. In school sections where the French or the German Language prevails, the trustees may, in addition to the Course of Study prescribed for Public Schools, require instruction to be given in Reading, Grammar, and Composition to such pupils as are directed by their parents or guardians to study either of these languages, and in all such cases the authorized text-books in French or German shall be used. But nothing herein contained shall be construed to mean that any of the text-books prescribed for Public Schools shall be set aside because of the use of the authorized text-books in French and German.

HIGH SCHOOLS.

(From the High Schools Act of 1901 (Sections 42, 43, 50.)

DUTIES OF TEACHERS.

Every teacher of a High School shall, in the organization, discipline, management and classification of the pupils, be subject to the regulations of the Education Department.

AGREEMENTS.

1. Any teacher of a High School who enters into an agreement with a board of trustees for one year and who serves under such agreement for three months or over, shall be entitled to be paid his salary in the proportion which the number of days during which he has taught bears to the whole number of teaching days in the year.

2. Every teacher shall be entitled to his salary during sickness, certified by a physician, for a period not exceeding four weeks for the entire year; this period may be increased at the pleasure of the trustees.

3. Any teacher who enters into an agreement with a board of trustees as teacher, and who wilfully neglects or refuses to carry out such agreement, shall, on the complaint of any board of trustees, be liable to the suspension of his certificate by the Education Department.

4. All matters of difference between trustees and teachers of High Schools in regard to salary or other remuneration, whatever may be the amount in dispute, shall be decided in the Division Court of the division in which the cause of action arose; provided always that the decision of the court in such cases may be appealed from, as under the Public Schools Act.

AUTHORIZED BOOKS.

1. No teacher shall use or permit to be used as text-books in a High School any books except such books as are authorized by the Education Department, and no portion of the Legislative or municipal grant shall be paid to any High School in which unauthorized books are used

2. Any authorized text-book in actual use in any High School may be changed by the teacher of such school for any other authorized text-book in the same subject on the written approval of the trustees, provided always such change is made at the beginning of a school term, and at least six months after such approval has been given.

3. In case any teacher or other person negligently or wilfully substitutes any unauthorized text-book in place of any authorized text-book in actual use upon the same subject in his school, he shall for each such offence, be liable on conviction before a Police Magistrate or Justice of the Peace, to a penalty not exceeding \$10, payable to the municipality for High School purposes, together with costs, as the Police Magistrate or Justice may think fit. R.S.O. 1897, c. 293, s. 46.

ORGANIZATION.

(From the Regulations of 1904.)

1. In every High School or Collegiate Institute the head teacher shall be called the Principal, and the other teachers Assistants.

2. The authority of the Principal of the High School shall be supreme in all matters of discipline on the school premises where the Public and the High School occupy the same building.

3. The provisions of the Public Schools Act, 1901, and the regulations of the Education Department with respect to the duties of pupils attending a Public School shall apply to teachers and pupils of High Schools.

4. The Principal of a High School or Collegiate Institute shall hold a Principal's Certificate and the Assistants shall hold High School Assistants' Certificates. Special teachers of Music, Art, Physical Culture, Manual Training, Household Science, and Agriculture shall possess qualifications satisfactory to the Minister of Education.

5. If, after due advertisement, a High School Board is unable to obtain a legally qualified Assistant, a temporary certificate may be granted by the Minister of Education for the current half year to a suitable person on the application of the Board.

6. The principal shall determine the number of pupils to be assigned to each form and the order in which the subjects in each form shall be taken up by the pupils.

7. The Principal shall make such promotions from one form to another as he may deem expedient; he shall also assign the subjects of the course of study among the Assistants.

8. No pupil once enrolled in a Secondary School (a High School, or a Public or a Separate School Continuation or Fifth Book Class) shall be admitted to another Secondary School unless he presents a letter of honorable admission from the Principal of the Secondary School he last attended. In the event of a dispute, the parties thereto shall submit full particulars of the question for final settlement to the Inspector of the school into which the pupil seeks admission.

PROGRAMME OF STUDIES.

1. The courses of study in the High School shall be taken up in three main divisions: The Lower School (a two or three years' course), the Middle School (a one or two years' course), and the Upper School (a one or two years' course). The Principal shall make such organization of forms as he may deem expedient.

2. The High School courses of study shall be organized as follows: (a) The General Course; (b) The Commercial Course; (c) The Manual Training Course; (d) The Household Science Course; (e) The Art Course; (f) The Agricultural Course; (g) The Courses for University Matriculation and the Preliminary Examinations of the Learned Professions; (h) The Courses for Teachers' non-Professional Certificates.

NOTE.—The Programme of Studies has been prepared primarily for the general student; but it includes the work prescribed for University pass and honour matriculation, for the teachers' non-professional examinations, and for the preliminary examinations of the learned professions.

3. The board of trustees shall select the courses on the report of the Principal; but a course shall not be taken up if, on the report of the High School Inspector, the Minister of Education decides that the staff, the equipment, or the accommodations are inadequate therefor.

4. The following subjects shall be obligatory on all pupils: The Lower School courses in Geography, Arithmetic and Mensuration, English Grammar, Writing, Reading, and Physical Culture, with the English Composition, English Literature, and History of the Lower and Middle Schools.

5. Pupils in the general course shall take in addition, the Art and the Elementary Science of the Lower School, with such other subjects of

the High School programme as may be agreed upon between the pupil's parent or guardian and the Principal of the school.

6. Pupils in the special Commercial, Manual Training, Household Science, Art, and Agricultural Courses shall take the subjects that are obligatory on all pupils (see section 4 preceding), with such suitable modifications as may be deemed expedient by the Principal and approved by the Minister of Education.

7. One of the courses prescribed in section 2 above and not more without the consent of the Principal, shall be taken by each pupil; but the Principal may omit or curtail the course in any of the obligatory subjects in the case of individual pupils who are not preparing for examinations, and whose circumstances, in his judgment, deserve special consideration.

8. The following shall be the average minimum amount of time to be devoted each week to each of the following subjects, separately from the other subjects, in the courses where such subjects are obligatory:

(1) *Reading*.—Two lessons of thirty minutes each for two years in the Lower School, the average number of pupils in each class being not more than twenty-five and the time being increased or diminished when the average in the class is greater or less than twenty-five. In all the school subdivisions, reading shall also be taken up systematically in connection with English literature.

(2) *Elementary Science*.—(a) For Biology, a lesson in each year of the Lower School, of thirty minutes every day during the months of September and October and from the beginning of April to the end of June; or the equivalent thereof.

(b) For Physics and Chemistry, a lesson, in each year of the Lower School, of thirty minutes three times a week, or the equivalent thereof, during the rest of the school year.

9. The course in drill, calisthenics, and gymnastics is obligatory in Collegiate Institutes, and shall be taken up in lessons of thirty minutes each, three times a week, in each form of the Lower School.

10. Provision for Physical Culture shall be made in the Middle and Upper Schools also, but the amount and the character of the provision are left to the discretion of the Principal.

11. No pupil shall be exempted from the course in Physical Culture except upon a medical certificate or on account of evident physical disability or of other reason satisfactory to the Principal and approved by the High School Inspector. In all the forms the sexes shall be separately trained.

12. During the months of May, June, September, October and November, the Principal may substitute for drill, etc., such sports and games as he may approve.

13. In High Schools having no gymnasium, drill and calisthenics shall be taken up at the discretion of the Principal as often as the weather, the accommodations, and the adequacy of the staff will permit; and gymnastics may be omitted.

14. The details of the courses of study in each form in High Schools shall be as set forth in Schedule II.—High School Programme of Studies.



Provision as to Certificates for English-French Schools in the Districts
and the Counties for the Year, August, 1909, to July, 1910.

- I.—(1) On the recommendation of the Inspector concerned, the Minister of Education will renew expired and renewed Third Class and District certificates until, at furthest, July, 1910; but, in order to secure such renewal, the Inspector may require the holder of such expired or renewed certificate to attend a Summer School.
- (2) Holders of Third Class and District certificates (including renewals and extensions) who pass in 1909 or in 1910
- (a) the English-French Model School final examination, and
 - (b) the academic examination for admission to the English-French Model Schools or are now holders of a Non-Professional District certificate or its equivalent,
- may, on the recommendation of the Inspector under whom they last taught, be granted Limited Third Class certificates valid for five years from date of issue.
- II.—Holders of Temporary certificates now engaged in teaching, and holders of Quebec certificates satisfactory to an Inspector of English-French Separate or Public Schools, shall have the first claim to vacant positions in the English-French schools after next July if they attend a Summer School and pass the final examinations thereof, provided always that legally qualified teachers are not obtainable for the vacancies.
- III.—For the above purposes, Summer Schools for English-French teachers will be held at Windsor, Ottawa, and Sturgeon Falls, beginning on July 7th and ending on July 30th.

A. H. U. COLQUHOUN,
Deputy Minister of Education.

TORONTO, May 18th, 1909.



1906.

COURSES FOR COMMERCIAL AND ART SPECIALISTS.

Reg. 52. Any person who passes the examination in the subjects set forth in Circular No. 2—Courses for Commercial and Art Specialists—(each paper being valued at 100, and the standard being 40 per cent. in each and 60 per cent of the aggregate, with 75 per cent. in honours), and who is holder of a High School Assistant's certificate, shall be entitled to an Interim Commercial or Art Specialist's certificate.

After the examinations of 1905 the following shall be the details of each course.

I. COMMERCIAL COURSE.

I. BOOK-KEEPING.

Theoretical Book-keeping. Single and double entry; general merchandising, commission business, manufacturing; single proprietor, partnership and corporation accounting, and changing from one form of ownership to another; plant, labor, material, and departmental accounts; practical treatment of such accounts as bank, discount, freight suspense, bad debts, depreciation, etc., columnar cash books, journals, etc., and the various forms of books necessary for the different kinds of business; manufacturing, trading, and profit and loss accounts balance sheets; statements of income and expenditure, and of receipts and disbursements. (One paper).

Practical Book-keeping. Making the proper records and financial statements from given data. This may take the form of separate questions and problems, or of a set covering a certain period of time (One paper).

II. PENMANSHIP.

Theory and practice of penmanship; position and movement; principles of letter formation; graceful, legible business writing; ledger headings, figures, marking and engrossing. (One paper).

III. MERCANTILE ARITHMETIC.

Interest, discount, annuities certain, sinking funds, formation of interest and annuity tables, the application of logarithms, stocks and investments, partnership settlements, partial payments, equating or averaging accounts, exchange, practical measurements, and the metric system. (One paper).

IV. GENERAL COMMERCIAL KNOWLEDGE.

Business Papers. Receipts, releases, promissory notes, chattel notes, lien notes, instalment notes, drafts, bills of exchange, orders, due bills, deposit slips, cheques, bank drafts, draft requisitions, deposit, receipts, bank pass books, bills, invoices, credit invoices, accounts, monthly statements, warehouse receipts, bills of lading, freight bills, proxies, power of attorneys, agreements, bonds, debentures, leases, instalment scrips, stock certificates, stock transfers.

Business Laws. Banking, etc. Negotiable paper, indorsement, acceptance, discharge, dishonor, protest, negotiability and assignability, accommodation paper, statute of limitations, statute of frauds, interest, money, payments, collection of accounts, partnership, joint stock companies, insurance; liability as partner, shareholder, director, agent, indorser, etc.; contracts—kinds, parties to, consideration, etc.; property, real and personal; mortgages, chattel and real estate; guarantee and suretyship; shipper and carrier; mechanics' lien; landlord and tenant—rights, duties and liabilities; principal and agent—relation to each other and to third parties; master and servant—relations, rights, duties, and liabilities; wills and succession duties; copyrights, trade marks, industrial designs, patent rights—purpose and legal requirements; banking—organization, business, note issue, redemption fund, crossed cheques, etc.; balance of trade—meaning, and effect on an exchange.

Statutory Requirements. Relating to companies, partnerships, insolvency, and winding up acts. (One paper).

V. AUDITING.

Object, scope, and advantages of an audit; preliminary steps: instructions to the book-keeper before an audit; continuous and complete audits; relation to prior audits; vouchers; trial balances and balanced books; individual, partnership, and company ownership; methods of accounting; different classes of audits, as commercial, mining, financial; valuation and verification of assets and liabilities; depreciation, discounts, bad and doubtful debts, reserve funds, etc.; preliminary expenses, directors' fees, etc.; foreign exchange; nature of profits; forms of accounts and balance sheets; auditors' reports, recommendations and certificates. (One paper).

VI. ECONOMICS.

The principles of production, distribution, exchange and consumption; value and price; land, labor and capital; rent, wages, and interest; monopolies, etc. (One paper).

VII. STENOGRAPHY.

Theory. The principles of Phonography by Isaac Pitman.

Practice. Writing from dictation at a speed of sixty words per minute, and accurate transcription into long hand at a speed of twelve words per minute; the dictated matter to comprise business correspondence and legal documents. (Two papers).

VIII. HISTORY OF COMMERCE AND TRANSPORTATION.

Ancient and mediaeval commerce; commercial significance of the great geographical discoveries of the fifteenth century; the Dutch commercial ascendancy; struggle of the English, French, and Dutch for the first place in commerce; the English industrial revolution; commercial significance of the Napoleonic wars; England's industrial and commercial supremacy; French industry and commerce since the overthrow of Napoleon; the German Empire and its commercial position, recent economic growth of Russia; the Balkan States, and the commercial position of South America, Africa, Asia and Oceania. The growth of commerce and the distribution agencies of Canada and the United States; markets and public carriers; growth of the factory system and its relation to agriculture and the development of transportation facilities;

relation of waterways to railways and the distribution of the waterways of the country and their effect on domestic commerce. (One paper).

NOTE.—The examinations for commercial specialists will be held in July at the same centres as the other departmental examinations.

BOOKS OF REFERENCE RECOMMENDED.

Canadian Accountant. J. W. Johnston, Belleville.

Canadian Standard Bookkeeping. J. W. Westervelt, London.

Joint Stock Company Accounts. D. Hoskins, Toronto.

Accounting in Theory and Practice. Geo. Lisle. Wm. Green & Co., Edinburgh.

Penman's Art Journal, (commence with September No.) 203 Broadway, New York.

The Theory of Finance. Geo. D. King. C. & E. Layton, Farringdon St., London, E. C., Eng.

Digest of Canadian Mercantile Law. W. H. Anger, Toronto.

Shareholders' Manual J. D. Warde, Toronto.

Assignments Act. Cassels. Hunter, Rose & Co., Toronto.

Auditing (chapters 1, 2, 3, 6, 7, 8). L. R. Dicksee. Gee & Co., London, E. C., Eng.

Elements of Political Economy. James Bonar. John Murray, Albermarle St., London, Eng.

Shorthand Instructor. Sir Isaac Pitman. The Copp Clark Co., Toronto.

The History of Commerce in Europe. H. de B. Gibbins. The MacMillan Co., London, Eng.

NOTE.—For The Winding-up Act, see R. S. O.

II. ART COURSE.

I. FREEHAND DRAWING.

With pencil, pen and ink, charcoal, and black crayon.

Drawing of common objects from observation and from memory.

Imaginative Drawing. Illustration of stories.

Principles of Perspective.

Outdoor sketching. Sketching from school windows.

Drawing from the cast and the human figure.

Rapid memory sketches of figures in motion.

Composition.

Representation of flat and relief maps. (Two papers).

II. CLAY MODELLING.

Common objects. Relief maps. Modelling from the cast.

III. COLOR DRAWING.

Suggestion of form with brush and ink; representation of common objects in monochrome tints; primary, secondary, and tertiary colors; proper combination of colors; watercolor and colored crayon drawings of common objects; outdoor sketching; sketching from the school windows. (One paper.)

IV. INDUSTRIAL DESIGN.

In outline and color.

Practical geometry as far as necessary for construction of designs, principles of design and anatomy of patterns; units of design adapted

from practical and geometrical forms; designs for floorcloths, wall paper bookcovers, advertisements, etc. (One paper).

V. GEOMETRICAL AND MECHANICAL DRAWING.

Problems in practical geometry and perspective; orthographic and isometric projection; drawing from specifications; simple machine drawing; simple architectural drawing. (One paper).

VI. DRAWING ON THE BLACKBOARD.

With white chalk and colored crayons.

Common objects; illustration of nature study, geography, etc.

VII. HISTORY OF ART.

An outline of the origin and development of Architecture, Sculpture and Painting, with some knowledge of the life and works of the great artists of each of the leading periods. (One paper).

NOTE.—(1)—All the examinations for art specialists will be held in July at the Toronto Normal School.

(2)—The examinations in clay modelling, in sketching and in drawing on the blackboard will be practical.

BOOKS OF REFERENCE RECOMMENDED.

Light and Shade. Cross. Ginn & Co., Boston.

New Drawing Course. Vaughan. Nelson & Son, London, Eng.

Clay Modelling. Holland. Ginn & Co., Boston.

Clay Modelling, Elementary and Advanced. Alex. Gordon, Charles & Dible, London, Eng.

Manual of Clay Modelling. Unwin. Longmans, Green & Co., London and New York.

Elementary Brushwork Studies. Yeats. Philip & Son, London, Eng.

Brushwork Studies. Yeats. Philip & Son, London, Eng.

Color Study. Cross. Ginn & Co., Boston.

Design and the Making of Patterns. Hatton. Chapman & Hall, London, Eng.

Science and Art of Drawing. Spanton. The Macmillan Co.

Geometrical and Perspective Drawing. Spanton. The Macmillan Co.

Blackboard Drawing. Seaby. Nelson & Son, London, Eng.

Blackboard Drawing. Whitney. Davis Press, North Scituate, Mass.

Architectural Drawing. Edminster. The Pratt Institute, Brooklyn, N.Y.

Ancient Sculpture. Redford (George). Sampson, Low & Co., London.

How to Judge Architecture. Russell Sturgis. Baker & Taylor Co., New York City.

How to Study Pictures. Caffin. Century Co., New York City.

Masters in Art. Bates & Guild Co., Boston. The following numbers. Vol I. Parts 2, 4, 6, 12; Vol. II. Parts 13, 14, 16, 17, 18, 21, 24; Vol. III. Parts 32, 35; Vol. IV. Part 41; Vol. V. Part 58; Vol. VI. Part 69.

Where possible students should also refer to the following:

Plaster Casts and How they are Made. Frank Forrest Frederick. Comstock, New York.

Modelling in Clay. A. L. Vago. Comstock, New York.

Modelling. A Guide to Teachers and Students. E. Lanteri. Chapman & Hall, London.

History of Architecture. Banister Fletcher. Batsford, London.



PROVISIONAL REGULATIONS, 1903.

MANUAL TRAINING, HOUSEHOLD SCIENCE, AND SPECIAL TECHNICAL INSTRUCTION.

1. The plans of every building hereafter erected or of any room adapted for the purpose of Manual Training, Household Science, or Special Technical Instruction shall be submitted to the Minister of Education, and be subject to his approval, and a copy of such plans shall be filed in the Department of Education.

2. Subject to the provisions of sections 5, 7 and 8 hereof, every school maintaining a Manual Training department shall be entitled to the following annual grants :—

(a) A fixed grant of \$350.00.

(b) 10 per cent. of the expenditure over \$600.00 for teacher's salary or salaries, but so as not in any case to exceed \$100.00.

(c) 20 per cent. of the cost of equipment for each of the first five years, and thereafter of the annual renewals and additions.

3. Subject to the provisions of sections 5, 7 and 8 hereof, every school maintaining a department for Household Science shall receive annually :—

(a) A fixed grant of \$200.00.

(b) 20 per cent. of the expenditure over \$500.00 for teachers' salaries, but so as not to exceed \$50.00.

(c) 20 per cent. of the cost of equipment for each of the first five years, and thereafter of annual additions and renewals.

4. Any school under the control of a Public, Separate, or High School Board, or Board of Education, or of a recognized Technical School Board, which is specially organized and equipped for giving instruction in the theory and practice of the mechanical and industrial arts and sciences, shall be entitled, to receive out of any Legislative appropriation therefor, in addition to such sums as they may be entitled to receive under sections 2 and 3 hereof, such further sum as the Minister of Education may approve, based upon inspection and report, but so as not in any case to exceed \$750.00. To be eligible for this grant the building in which instruction is given, equipment, courses of study, and qualification of staff shall be approved by the Minister of Education.

5. In apportioning the Legislative grants on equipments, the maximum value recognized shall be (a) for Manual Training \$500.00, (b) for Household Science \$300.00 but no grant in respect of equipment shall be paid where such equipment has been donated to the School Board.

6. The course of study, and the qualifications of every teacher hereafter employed, shall be subject to the approval and regulations of the Education Department.

7. The unit of distribution of the Legislative grant for Manual Training and Household Science shall be the time of one teacher for five hours on each of five days per week.

8. The grants mentioned in the foregoing sections shall be subject to such pro-rata increase or reduction as the Legislative appropriation therefor will permit.

9. No Manual Training or Household Science school or department will be recognized as efficiently equipped that is provided with accommodation for less than 12 or more than 25 students, at any one time, for practical work.

SYLLABUS
OF
Courses and Regulations
FOR
The Model Schools
AT
Cornwall, Durham, Kingston, Lindsay,
Renfrew, and North Bay.

SESSION 1909.



ONTARIO
DEPARTMENT OF EDUCATION

TORONTO :
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1909.

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TORONTO.

The Model Schools of Ontario 1909.

LOCATION AND PURPOSE.

1.—(1) The Model Schools are situated at Cornwall, Durham, Kingston, Lindsay, and Renfrew. Provision is also made at the North Bay Normal School for Model School work.

(2) The purpose of the Model Schools is to prepare teachers of the Third Class, in the theory and the art of organizing, governing, and instructing the pupils of the Public and the Separate Schools; and to improve the general culture of such teachers and, in particular, their academic preparation for teaching the subjects prescribed in the programme of studies.

(3) The attached Urban Public and Separate Schools, and the attached Rural Schools, are used, as required, to afford the teachers-in-training adequate means of observing well-conducted Schools, and of securing practice in teaching, discipline, and management.

SESSION.

2. The session of the Model Schools will begin on the first day of September, 1909, and will end on the fifteenth day of December.

CONDITIONS OF ADMISSION.

APPLICATION TO THE DEPUTY MINISTER.

3. Application for admission shall be made to the Deputy Minister not later than August 15th, 1909, on a form to be supplied by him.

APPLICATION TO THE PRINCIPAL.

4. In addition to the card of admission from the Deputy Minister, each applicant, on presenting himself at a Model School, shall submit to the Principal thereof:

(1) A certificate from competent authority that he was at least eighteen years of age before ~~September 1st, 1909.~~ *December 31.*

(2) A certificate from a clergyman, or other competent authority, that he is of good moral character;

(3) A certificate on the official form, from a physician, that he is physically able for the work of a teacher, and, especially, that he is free from serious pulmonary affection and from seriously defective eyesight or hearing.

(4) One of the following:

(a) A certificate of having passed the District Certificate Examination of 1904, or any subsequent year.

(b) A certificate of having passed the Examination for Entrance into the Model Schools;

(c) A certificate of having passed the July Examination for Entrance into the Normal Schools or Faculties of Education, or of having obtained 40 per cent. of the aggregate marks in either of these examinations with 25 per cent. in each paper; provided that in all such cases the candidate satisfies the Principal of the Model School that he is competent in the subjects of the Model School Entrance Examination which are not required at the said July Examinations.

NOTE. Candidates are hereby notified that they must present themselves at the date prescribed in paragraph 2, and comply fully with the conditions prescribed in paragraphs 3 and 4.

DUTIES OF PRINCIPALS AND ASSISTANTS.

5.—(1) Subject to the regulations and to the approval of the Minister of Education, the Principal of each Model School shall prescribe the duties of his staff and shall be responsible for the efficiency of the Model School.

(2) The other members of each staff shall be subject to the authority of the Principal.

DUTIES OF TEACHERS IN TRAINING.

6.—(1) Teachers-in-training shall board and lodge at such houses only as are approved of by the Principal.

(2) They shall attend regularly and punctually, and shall submit to such discipline and directions as the Principal may prescribe.

(3) Teachers-in-training who, in the opinion of the staff, are unduly defective in scholarship, or whose conduct or progress is unsatisfactory, may be dismissed by the Principal at any time during the session from further attendance at the Model School.

(4) All applicants are strongly advised to review carefully before entering, the work of the Lower School of the High Schools.

TEXT BOOKS.

7.—(1) The text-books for the academic work shall be those prescribed in such subjects for the High Schools.

(2) The text-books for the professional work shall be those prescribed for the Public Schools, and those printed below in italics.

LITERARY SOCIETY.

8. A Literary Society for general culture and for professional advancement shall be established in each Model School, and shall be fostered by the staff as an important part of the Course of study. It should begin immediately after the work of organization has been completed, and should meet once each week until the special preparation for the final examination begins. The programmes should include essays, debates, recitations, and the reproduction of suitable scenes from standard plays.

EXAMINATIONS.

SUBJECTS AND VALUES.

9.—(1) (a) The final standing of the teacher-in-training shall be determined on the combined results of his sessional records (including Class Tests and Observation and Practice-teaching) and the prescribed final examination.

(b) The final examination papers shall be uniform for all the Model Schools, and shall be based upon the courses as laid down in this Syllabus.

(2) (a) The examinations in Groups II. and III. shall include a thorough test of the academic qualifications of the teacher-in-training.

(b) At the examination in Groups I. and II. there shall be one paper on each of the following subjects, and the maximum marks for each subject of the examination shall be as follows: the marks for the Sessional Records in each subject being 20 per cent. of the maximum.

Group I.

Professional. Principles of Education, School Organization and Management, each 100.

Group II.

Academic and Professional. Arithmetic, Literature, Grammar, History, Composition, Geography, and Nature Study, each 100.

Group III.

(3) The marks counted in estimating the final standing of the teacher-in-training in the following subjects shall be those awarded him during the session, more especially towards the close thereof, for the oral, written, and practical tests in matter and, where applicable, in method, the maximum for each subject being as follows:—

Academic and Professional. Art, Music, Reading, Spelling, Writing, Physical Training, and Physiology and Hygiene, each 100; School Law and Regulations, 50.

Group IV.

(4) The marks counted in estimating the final standing of the teacher-in-training in Observation and Practice-teaching shall be those awarded him in these subjects during the session and more especially towards the close thereof, after an introductory course of lessons in each. The maximum marks for Practice-teaching shall be 1,000, and those for Observation lessons 200.

CERTIFICATES.

10.—(1) A teacher-in-training who at the final examination obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate of the marks for each of Groups I., II., III., and IV., may on the recommendation of the staff be awarded a Limited Third Class certificate valid for five years.

(2) A teacher-in-training who fails at the final examination in either or both of Groups I. and II., but who obtains the aggregate in each of these groups and passes in Groups III. and IV., may, on the recommendation of the staff and Board of Examiners, obtain a Limited Third Class certificate without attending a second session, on obtaining at any subsequent Model School examination 60 per cent. of the marks for each of the subjects of his failure. All other candidates who fail shall attend a second session.

(3) Candidates who are exempt from attendance at a Model School and who are actually engaged in teaching, shall be exempt from an examination in Group IV., provided they submit to the Minister a certificate from their last Inspector that they have taught successfully for at least six months. The pass standard shall be 40 per cent. of the marks for each subject and 60 per cent. of the aggregate of marks for each of Groups I., II., and III.

PROGRAMME OF STUDIES.

11.—(1) The courses of study for teachers-in-training who attend for a year's session shall consist of the following:

(a) A review, as far as time will permit, of the Public School course and of the academic subjects, from the standpoint of pedagogy and the requirements of the Public and Separate Schools, including special instruction in Reading, Writing, Art, Physical Training, Physiology and Hygiene, Music, School Law and Regulations.

(b) The principles of Education and General Methodology, Special Methodology, and School Organization and Management.

(c) Supervised Observation in the Public Schools.

(d) Supervised Practice teaching in the Public Schools.

ORDER OF THE COURSES.

12.—(1) In order that the teacher-in-training may begin early the Observation work and the Practice-teaching, the following introductory courses shall be taken up in the following order:

(a) The prime essentials of the course in the Principles of Education and General Methodology.

(b) A course of Observation in the different forms of the Public Schools.

As soon as the course begins, one lesson a day shall be given in the course in (a) and in (b), the total number in each being from ten to fifteen.

(2) To prevent the dissipation of energy which would result from the concurrent study of a large number of subjects diverse in content, the system of intensive study should be followed so far as circumstances will permit. In the order of the courses and the grouping of the subjects, due regard should be had to the character of each subject and its natural relations, and to the logical development of the courses and their relative functional value in the pedagogy of the Public School programme. When a subject has been finished, it should from time to time be reviewed with a further extension of the most important parts, having due regard to its character and importance.

(a) On the professional side after the completion of the Introductory Course [13 (1) (a)] the course in the Principles of Education should be taken up three times a week until finished. The course in School Organization and Management should be taken up from the first three times a week until finished.

(b) The minimum number of periods for each of the professional and academic subjects should be as nearly as practicable as follows:

The Principles of Education, including the Introductory course, 35; School Organization and Management, 30; School Law and Regulations, 5; Arithmetic, 20; Grammar, 15; Literature, 15; History, 10; Geography, 15; Language and Composition, 20; Spelling, 8; Reading, 20; Nature Study, 15; Physiology and Hygiene, 8; Art, 15; Music, 10; Physical Training, 8; Writing, 15.

OBSERVATION AND PRACTICE TEACHING.

13.—(1) The Introductory Courses provided for in Regulation 15 shall be followed by systematic Observation and Practice-teaching, the minimum number of Observation lessons being 30 and of Practice-teaching lessons 20; but these numbers shall be increased to meet the necessities of individual teachers-in-training.

(2) (a) The teachers-in-training shall be divided into suitable groups, and the work of Observation and Practice-teaching shall be taken up systematically per time-table arranged from time to time.

(b) At least that group to which the teacher-in-training belongs shall be present at the discussions on his Observation and Practice-teaching lessons.

(3) The Observation and Practice-teaching lessons for each teacher-in-training shall, as far as practicable, be arranged so as to cover the work of the Public Schools in all subjects and in all grades.

(4) (a) Teachers-in-training shall be notified by the Principal, of the subject and the scope of the Observation lesson, and shall prepare the lesson beforehand.

(b) After observing the lesson, they shall submit a report upon it to the teacher concerned.

(5) (a) Teachers-in-training shall be notified of the subject and the scope of the Practice-teaching lesson, by the teacher of the Public School, after consultation with the Principal.

(b) Teachers-in-training shall prepare a plan of each Practice-teaching lesson for submission to the teacher concerned.

(6) Model lessons for Observation by the students shall be taught by the teachers of the School in accordance with the regular programme of the Model School.

(7) (a) The necessary applications of the Principles of Education and of Special Methodology shall be made systematically by the Model School Principal in connection with the Model and the Observation lessons and the Practice-teaching; so that the course may be taken up in terms of the child's mind and growth.

(b) Concerted work on the part of the teachers in the Model School shall be secured by frequent conferences, especially before the work concerned begins.

SYLLABUS OF COURSES.

EDUCATIONAL PRINCIPLES AND GENERAL METHODOLOGY.

14. The object of the course is to provide teachers with such a working conception of the nature of Education and of Methodology as will improve natural tact and skill by determining procedure and forming ideals.

(1) Aim of Education: Examination of some of the current definition of Education; relation of aim to procedure in education.

(2) Function of the school: The relation of the school to other social institutions, the home, the church, the state, the vocation.

(3) Subject Matter of Instruction: Purpose and value of subjects of study.

(4) Methods of Instruction: Purpose of methods of instruction; necessity of basing methods of instruction on the knowledge of the laws of mental development.

(5) Instincts and Interests: The place of natural tendencies in the development of mental life; a study of some of the more significant of the child's instincts and interests; methods of eliminating, strengthening or modifying instincts or interests.

(6) Habit and Association: Nature of habit; relation of habit to instinct; condition of the formation of habits; the laws of habit applied to school studies, especially to those involving the acquisition of skill, such as writing, reading, manual training, art, etc.; the place of habit in character formation; nature of association; conditions of association; relation of association to habit; how to form permanent associations.

(7) Apperception; Nature of apperception; necessity for making subjects taught meaningful; the process of interpreting the new in terms of the old applied to school studies; significance of the maxim "Proceed from the known to the related unknown."

(8) Attention: Nature of attention as a process; conditions of attention; relation of attention to habit and association; interest in its relation to attention; voluntary and non-voluntary attention distinguished; attention in young children and in adults compared; methods of securing and retaining attention; obstacles to attention.

(9) Retention: Conditions of retention; the relation of retention and apperception; the factors in efficient recall; functions of the drill lesson and of the review lesson; methods of conducting drill and review.

(10) Individual and General Notions: How they are distinguished from each other; how individual notions should be approached and presented; how to proceed from individual to general notions; the value of types in the development of general notions; how general notions should be applied.

(11) Laws underlying the Process of Teaching: The relation of analysis to synthesis, of induction to deduction.

(12) Impression and Expression: Their interdependence; importance of this interdependence as the basis for the constructive side of school work; its bearing upon the development of character.

(13) *The Plan of the Recitation*: Adjustment to the needs of the capacities of the pupils; relation of previous work; examination of the "five formal steps" of the Herbartians.

(14) *Teaching Devices*: Use of questioning in the development of the individual and general notions; right and wrong methods of questioning; examination of the so-called Socratic method; answers; qualities of a good answer; treatment of faulty answers; mistakes in dealing with answers; illustrations; their office and value.

BOOKS OF REFERENCE:—

McMurry: *Method of the Recitation*.

Gordy: *Psychology*.

Tilley: *Methods of Teaching*.

SCHOOL ORGANIZATION AND MANAGEMENT.

15. The object of the course is to give the teacher, in the light of the principles of education, a knowledge of the technique of school management and organization, which shall enable him to secure the smooth and efficient working of his school. The course includes the following topics:

(1) *The Teacher*: Natural qualifications of a good teacher; importance of scholarship, of training, of experience, of professional studies, of wide culture, of Teachers' Associations, etc.; the teacher's relations with the Principal, the Inspector, or trustees, parents; civic and social duties; personal power and influence in the school, in the community; daily preparation for teaching; correcting written exercises; care of health.

(2) *Classification*: The meaning and the problems of school organization; promotions, when and how made; in graded schools the division of subjects and pupils among the several teachers.

(3) *The Daily Programme*: Its purpose and value; principles involved in the construction of a time-table; seat work; individual blackboard work; the question of fatigue; typical time-tables for graded and for ungraded schools; school records.

(4) *Written Examinations*: Good effects; bad effects; school results that cannot be tested by examinations; how to set examination papers; reading and valuing the answers; examinations as related to promotions.

(5) *School-room Routine*: Chief varieties of mechanizing routine, their advantages and disadvantages; appointment of monitors.

(6) *Desirable School Habits*: Punctuality; neatness in person and in work; accuracy; quietness; industry; obedience; the relation of the preceding to moral training.

(7) *School Incentives*: Kinds and office; effects on character, on school work, on health.

(8) *Order and Discipline*: What is meant by good order; the chief elements of governing power; faults and how to avoid them; co-operation of school and home; punishment; ends and necessity; right conditions; characteristics of judicious punishment; injudicious punishment; the discipline of consequences.

(9) *Physical Education*: Relations of physical and intellectual development; importance of change of work; value of plays and games; organized or unorganized play; dangers of fatigue; the teacher on the play-ground; physical exercise within the school.

(10) *The Kindergarten*: Its essential principles; relation to the school system as a whole.

NOTE.—For information as to the necessary details of School Accommodations and Equipment, the teacher-in-training is referred to Circular 33, of 1907.

BOOKS OF REFERENCE:—

Millar: *School Management*.

Bagley: *Class Management*.

White: *School Management*.

London: *Principles and Practice of Teaching and School Management*.

SPECIAL METHODOLOGY.

16. The object of the course is to prepare the teachers-in-training for intelligently observing and teaching in all grades of the attached Public Schools, by enabling them to apply the principles of education and, in particular, to adapt to the work in each subject the principles of General Method. The work in the special method of each subject is introduced by a few lessons of a general character, embracing the application of the principles of General Methodology to the teaching of the subject. These introductory lessons are followed by a series of a more detailed character, dealing with:

(1) The selection and the organization of material for the Public School Forms, taken in order, from the standpoint of presentation to the pupil.

(2) The discussion of special methods of instruction concurrent with the academic review of the subject matter.

The courses shall be taken up in terms of the Public School Programme of Studies, the provisions of which shall be constantly kept in mind.

GENERAL BOOKS OF REFERENCE:—

Chubb: *Teaching of English*.

Hodge: *Nature Study and Life*.

Dearness: *How to Teach Nature Study*.

Silcox and Stevenson: *Nature Study*.

Geikie: *Teaching of Geography*.

Annandale: *The Concise Imperial Dictionary*.

I. LANGUAGE AND COMPOSITION.

17. The special object of the course in Language and Composition is to prepare the teacher to train his pupils to speak and to write good English as a fixed, unconscious habit. The course includes the following topics:—

The importance of language training; the place of a knowledge of the mother tongue in education; the value of clearness, force and grace of expression.

Oral and written composition; Their relation; how habits of speaking and writing correctly are formed; the effect of the teacher's example upon the pupil's language; importance of libraries for supplementary reading; influences opposed to good usage; incidental work in language training; expression as a stage in the development of every lesson; necessity for special exercises in oral and written composition.

Methods in oral and written composition. Methods of encouraging pupil's free natural expression and of extending his vocabulary through oral exercises; principles governing criticism of oral work; the dangers connected therewith and the means of avoiding them; value of formal linguistic exercises; the relation of a knowledge of grammatical rules to the development of correct forms in speech; method of correcting common errors; relative value of pupil's own language and of special exercises in false syntax as material for criticism; the principles to be kept in view in conducting exercises in written composition; supervision and aid during writing; value of topical outlines; the place of home-work in written compositions; method of correcting compositions; value of re-writing.

Mechanics of written composition. Sentence and paragraph structure; paragraph compositions; the use of capitals, punctuation marks, quotation marks, abbreviations, etc.

Materials for written and oral composition: Principles governing choice of topics; gathering, selecting and arranging material; class answers as material for oral composition; importance of framing questions that will require answers of considerable length; the reproduction of fairy and folk stories, fables, poems, biographies; relative value of reading and telling stories; transition from reproduction to originality; descriptions of personal experiences, real and imaginary; pictures suggestive of stories, school games, autobiographies of familiar things: developing themes from minor incidents, themes connected with school studies, general themes; letter writing, with special attention to form and style; invitations and replies thereto; bills, receipts, promissory notes, etc.

II. READING.

18. The special object of the course in Reading is to prepare the teacher to train his pupils to get the writer's thought and feelings (*intelligent reading*) and to communicate them to the listener so that he may appreciate them (*intelligible reading*). The course includes the following topics:—

The scope of reading: Its correlation with other subjects; importance of training in reading and the principles of vocal expression to pupil's ordinary speech and general culture; the limitations of the pupil's ability to interpret words; his previous preparation.

Forms of reading: The function and value of silent reading, sight reading, dramatic reading, elocution, declamation.

Methods in reading: Examination of the various methods of teaching beginners to read; advantages and disadvantages of each; devices for securing rapid word recognition and for fixing attention on the thought as well as upon the word forms in the earlier stages;

means of securing natural expressive reading; the place and limitations of imitative reading; common faults on the part of both pupil and teacher and how to correct them; criticism by teacher and by pupils. Change in purpose and methods of reading as determined by the development of the pupil's experience and powers; the necessity for giving attention to expression in all stages; the objects of advanced reading; methods of developing in pupils the habit of reading for thought and pleasure; reading as a means of creating and fostering a taste for good literature.

III. SPELLING.

19. The special object of the course in Spelling is to prepare the teacher to secure accuracy in the mechanism of written word-expression. The course includes the following topics:—

Scope of spelling: Its correlation with other subjects; causes of the difficulties experienced by pupils in learning to spell; causes of incorrect spelling.

Methods in spelling: Necessity for teaching, not merely testing spelling; examination of the various methods of teaching spelling; the adaptation of each to the nature of the words and to the individual mental characteristics of pupils; phonic exercises and word-building in relation to spelling; syllabication; the place of transcription and dictation; methods of checking and correcting errors; value of re-writing; prevention *versus* correction; the character of drill and review exercises in spelling; methods of varying the spelling recitation; value of rules in spelling.

Materials for spelling: Principles of selection of material for spelling; grouping of words for the purpose of spelling; incidental spelling; uses of the dictionary and of the spelling-book.

IV. LITERATURE.

20. The special object of the course in Literature is to prepare the teacher to create in his pupils a taste for good literature, while broadening their knowledge, moulding their characters, and aiding them to appreciate the beauty and the power of artistic expression of thought and feeling. The course includes the following topics:—

Selection of subject-matter for Literature Lessons: Qualities of literature that appeal to children of different ages; basis of selection of material for different grades; lists of suitable fairy tales, fables, nature stories, etc., adapted to children of lower grades and of general works for pupils in the highest forms; complete wholes *versus* extracts.

Methods in teaching literature: Methods of dealing with primary literature; comparison of values of reading and telling; the application of the general principles of method to the teaching of literature; method in supplementary reading contrasted with that in exact study; the importance and method of memorizing selections; the value of oral reading in the interpretation and appreciation of literature; the importance of the teacher's own ability to read well.

Lesson procedure: Preparation of the pupils; necessity for preparing a suitable mood for the lesson; how far the author's biography has a place here; preliminary reading of the selection; the main thought of the lesson grasped in a more or less indefinite way through a reading of it; the analysis of a selection into its wider thought, elements and the analysis of these again into their elements; the place of explanation of words and phrases; the use of the dictionary; the relation of the subordinate thoughts to the unity of the whole; the main thought of the selection as made definite by the analysis; the oral reading of the selection by pupils after study; the value of oral and written reproduction; suitable seat work.

Examinations in literature: Difficulties of examining in literature; specimen examination questions.

Teacher's preparation: Special importance of teacher's own qualifications; sessional private reading-courses for teachers-in-training; suggestions for their future reading.

School Library: Principles to be kept in view in selecting works for the school library; methods of making use of school library; means of securing the co-operation of the home in the pupil's reading.

V. GRAMMAR.

21. The special object of the course in Grammar is to prepare the teacher to secure precision of expression on the part of his pupils, to train them in habits of logical analysis, and to give them a basis for self-criticism in language by developing the principles of language structure. The course includes the following topics:—

Meaning of Grammar; the relation of grammar to speech; correlation with other subjects; reasons for and against retaining it in elementary schools; reasons for deferring the formal study till Form IV.

The sentence as the starting point; basal value of function; order and method of teaching the parts of speech; principles of classification as applied to grammar; inflection, use and value of our remaining inflections; rules of syntax, their value; use of grammatical terminology; definitions, their value, how to be obtained, how to be applied; analysis and parsing, aim and value of each; value of diagrams; oral and written exercises; treatment of false syntax.

VI. HISTORY.

22. The special object of the course in History is to prepare the teacher to train pupils to adapt human experiences to present situations. In the elementary stages the chief objects are to arouse an interest in historical studies, to enable the pupils to appreciate the logical sequence of events, and to give them a knowledge of their civil rights and duties; also to stimulate a love of country. The course includes the following topics:—

The scope of History: The correlation of history with other subjects, especially geography; the special value of Canadian and of British history; the proper perspective in the development of the subjects; parts enlarged in the academic review; what makes an event important.

Methods: The recitation, its form and purposes; the place of oral teaching and of blackboard work by teacher, and of written exercises at seat and at blackboard by pupils; methods in oral and in written work; the use of pictures, maps, etc.; of readers and of the text-book; relation of method to the personality of the teacher and his knowledge of the subject; special importance of preparation of lesson by teacher owing to mass of detail; errors to be avoided.

The selection and arrangement of material suitable for different grades; the place and purpose of each of the following:—

History of the aborigines, pioneers, local history.

Biography: The natural attractiveness of biography; the relation of biography to history; the effects of a study of biography on the development of character; selection of suitable biographies for pupils of different grades, as the lives of explorers, navigators, and soldiers for primary grades; of statesmen, poets, scientists, etc., as representing more complex conditions, for pupils of higher grades.

Civics: Ends to be kept in view in teaching civics; consideration of work to be undertaken in civics; study of civic institutions as appearing in their lowest forms among primitive peoples; the beginnings of governments, of courts, of school systems, of factories, of means of transportation, etc., study of present forms of civic institutions.

Epochs: Their relation to biography; systematic chronological study of history; its value and its dangers; the causal sequence of events.

Supplementary material: The use of mythology, ballads, orations, epics, legends, tales of chivalry, narrative poems, and historical novels; character of history readers and of supplementary works for the different grades. Significance and value of the Flag.

VII. GEOGRAPHY.

23. The special object of the course in Geography is to prepare the teacher to extend the pupils' knowledge of the earth and its relation to life thereon, and to assist them in interpreting and utilizing their physical environment in accordance with their needs. The course includes the following topics:—

The scope of Geography; its relation to other subjects, especially to Nature Study, History, and Elementary Science.

The review of the course should lay special emphasis on the study of the earth's surface and the changes wrought thereon by the various agencies; rock formation and soils; distribution of mineral products; plant and animal life; the earth's relation to other heavenly bodies; weather and climate; man's relation to the rest of the world; commercial and political geography.

Methods: Consideration of the order of development of the subject in rural and urban schools; the use of maps, globes, pictures, blackboard drawings, natural objects, specimens of products, stereoscopic views; modelling, map drawing, scales and projections; weather observations and records, simple experiments in explanation of natural phenomena (See course in Experimental Science); excursions in connection with the observations in local geography;

the use of reference library, books of travel, geography readers, etc., common mistakes in teaching geography and means of avoiding them; special importance of preparation of lesson by teacher owing to mass of details.

VIII. NATURE STUDY.

24. The special object of the course in Nature Study is to broaden and deepen the teacher's sympathies and interests, and, through him, those of his pupils, by training him to observe and interpret the common phenomena of the world about him. The course includes the following topics:—

The character and scope of nature study; its relation to formal science; its correlation with other subjects.

Material for Nature Study: Conditions determining the choice of material for nature study lessons for pupils of different grades, and for varying conditions in rural and urban schools; uses and limitations of books, pictures, models, collections, etc.; supplementary materials such as stories, literature, etc.

Methods in Nature Study: Nature Study as a method; special characteristics of a typical nature study lesson: Directions for conducting school excursions. The study of special topics dealing with materials of nature study and illustrating methods of presentation in all grades of public schools, the topics to be typical and to be selected from various grades and departments of the Public School course of study.

NOTE.—Teachers-in-training should make frequent excursions for the purpose of studying materials in their natural environment and relations. They should make collections of different kinds for their own use as well as to enable them to direct as teachers the practical side of nature study. The nature of the collections will be regulated by the kind of school in which the student will likely teach; rural teachers, should make collections of weeds, weed seeds, economic plants, diseased plants, injurious and beneficial insects, etc.; urban teachers, of factory products, garden flowers, etc.

IX. ARITHMETIC.

25. The special object of the course in Arithmetic is to improve the teacher's knowledge of the subject that he may use it effectively as a means of logical training, and more particularly that he may be prepared to give his pupils such instruction in the various arithmetical processes as will enable them to make with accuracy, rapidity, and facility, the calculations and computations which their future life may render necessary. The course includes the following topics:—

The scope of Arithmetic; its relation to the other subjects of the curriculum; importance of its practical aspects as related to the lives of the pupils; danger of over-estimating its value as training in logic; the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; number, a ratio.

Methods in Arithmetic: Analysis and synthesis, induction and deduction, compared, illustrated, and applied; graphic methods;

use of concrete material in making clear new processes and in verifying and interpreting operations performed; the use of text-books and of prescribed apparatus; the importance of training in, and devices to secure, neatness, accuracy, and speed in computation; the importance, place, and treatment of oral arithmetic; the value of problems; the essentials of proper solutions; solutions by full analysis, and by performing operations only; "unitary" method and method of direct measurement; grading of problems; interest in problems for which the pupils themselves furnish the material; blackboard work; drill and examination work in arithmetic.

A thorough treatment of the various arithmetical operations and their applications with special stress upon the requirements of teachers engaged in public school work. This should include the following:—

Counting; measuring with standard units; numbers from 1 to 10, from 10 to 20, etc.; number pictures; notation and numeration; addition-tables, exercises, devices; subtraction by decomposition, by equal additions, and by complementary additions; multiplication relation to other operations, tables, exercises, factors; division, short and long, factoring, cancellation, division by factors; measures and multiples.

Fractions: How and when to be introduced, different interpretations, notations, rules for operations deduced and applied; decimal fractions, correspondence of methods of numeration, notation, and operations with those of integers, recurring decimals.

Applied arithmetic: Percentage, trade discount, commission, insurance, taxes, interest, discount, stocks, exchange; tables of weights and measures; the metric system; mensuration including the areas of rectangles, triangles, parallelograms, and circles, and the volume of rectangular solids, cylinders, and prisms; square root.

X. WRITING.

26. The object of the course in Writing is to train the teacher to write rapidly and legibly, and to make him familiar with the best means of securing the most satisfactory results in the teaching of the subject. The course includes the following topics:—

The purpose of writing; its correlation with other subjects.

Penholding; position at the desk; position of the paper; the proper formation of the small and the capital letters and the figures; various movement exercises; practice on paper and on the blackboard.

Use of headlines and copybooks; use of blank paper; its ruling; value of transcription, dictation, and composition in writing; use of the blackboard to teach the correct form of each letter singly and in combination; how general and individual faults are corrected; the formation of a characteristic hand; how to deal with pupils having some physical disability.

NOTE.—After the teacher-in-training has mastered in class the proper formation of the letters, etc., and the movement exercises, the master should require him to hand in from time to time exercises for criticism until his handwriting is satisfactory.

The writing in the Schools is so generally defective that the subject must receive special emphasis.

XI. ART WORK.

27. The special object of the course in Art is to give the teacher such a knowledge of the subject, such a training of his æsthetic nature, and such facility in the use of Art as a means of expression, as will enable him to develop like tastes and powers in his pupils. The course includes the following topics:—

The scope of art; art as a mode of expression and a means of æsthetic culture; its correlation with other subjects in the school course.

Freehand Drawing: How to use the various mediums, pencil, charcoal, crayon, ink with pen or brush; the drawing of common flat objects, such as leaves, grasses, brooms, shovels, saws, hammers in an appropriate medium; the drawing of common spherical, cylindrical and rectangular solids, illustrating the principles of freehand perspective; the grouping of objects; simple landscapes from nature and imagination; illustration of games, occupations, nursery rhymes and stories, pose drawing; drawing from casts.

Blackboard Drawing: The use of white, black, and coloured crayons on the blackboard and on large pieces of paper; rapid illustrative sketches to aid in the teaching of all subjects; blackboard drawing specially important to the teacher as a means of expression; the representation in colour, neutral values, and sepia, of leaves, grasses, flowers, fruits, trees, insects, pet animals, birds, and common objects; the grouping of objects; simple landscapes from nature and imagination; elementary composition of pictures.

BOOKS OF REFERENCE:—

Prang's *Text Books of Art Education*; 7 books, \$2.40.

Prang's *Drawing Course*.

XII. MUSIC.

28. The special object of the course in Music is to train the teacher in the use of Music as a means of self-expression and of æsthetic culture. The course includes the following topics:—

Tune: Practice in singing from the staff and tonic-solfa modulators; intervals of moderate difficulty, contained in the major diatonic scales; modulation from any given key to its relative minor, and its dominant and subdominant.

Time: Practice in singing rhythmical studies in simple or compound duple, triple, or quadruple time; the pulse as the unit of measurement in time, with its divisions into halves, quarters, or thirds in varied combination.

Voice Culture: Practice in correct tone production; vowel formation; enunciation of consonants; breath control; correct intonation; and the equalization of the various registers of the voice.

Songs: The study of songs suited to the requirements of pupils in all grades of Public and Separate Schools, with special attention to development of power in musical expression.

Notation: Elements of notation, both tonic-solfa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Methods: Concurrently with the foregoing course, a practical knowledge of recognized systems of teaching the tonic-solfa and staff notations.

NOTE.—Teachers-in-training who, from any cause, consider themselves incapable of learning to sing should present their cases to the teacher of Music at the beginning of the term. If, on examination, it should be found necessary, special instruction will be provided, adapted to their needs; and their efforts to overcome any natural disability which may be found to exist, will be taken into account at the oral examination at the close of the term. The written examinations, however, are compulsory for all students, and, if the teacher-in-training is unable to sing, his certificate will state so.

XIII. PHYSIOLOGY AND HYGIENE.

29. The object of the course in Hygiene is to train the teacher in the knowledge requisite for the maintenance of the health of both himself and his pupils, and to qualify him for supervising the sanitary conditions of the school and its surroundings. The course includes the following topics:—

Contagious and Infectious Diseases: How to detect existence of common infectious and contagious diseases; modes of preventing spread of these diseases; sanitary legislation; duties of the teacher.

Personal Hygiene.

Care of teeth, skin, eyes and ears; relation of exercise to health; effects of alcohol and tobacco.

Accidents and Emergencies: First aid in such cases as fainting, suffocation, drowning, hemorrhage, fractures and dislocations, venomous stings, poisoning, frost-bites, sunstroke and heat-stroke, burns; bandaging.

BOOK OF REFERENCE:—

Knight: Introductory Physiology and Hygiene.

XIV. PHYSICAL TRAINING.

30. The special object of the course in Physical Culture is to enable the teacher to make proper provision for the physical training of his pupils.

Series of graded exercises to be used as recreation in class-room in intervals between classes.

Recreative gymnastics, or gymnastic games; indoor and outdoor games.

XV. SCHOOL LAW AND REGULATIONS.

31. The Ontario School Law and Regulations so far as they deal with the duties and obligations of teachers and pupils.



CIRCULAR OF INSTRUCTION TO PUBLIC AND SEPARATE SCHOOL INSPECTORS AND STUDENTS IN PROVINCIAL MODEL SCHOOLS.

Under former regulations District certificates were granted by County Boards of Examiners and were valid only within the jurisdiction of the County Board and for such schools as each County Board might designate (Rg. 48 of 1904). At the last session of the Legislature such Boards were abolished and their powers transferred to the Minister of Education. In future, accordingly, Third class certificates will be issued by the Minister and will be known as Limited Third Class Certificates.

As has been previously announced by circular certain Model Schools have been retained for the present year for the preparation of Third class teachers for school sections in the Districts and organized counties whose financial and other conditions may prevent them from securing a teacher holding a First, Second or Provincial Third Class certificate.

Such limited Third class certificates shall correspond to the professional District certificates, and shall be valid for five years and only for such Public and Separate schools as the Minister of Education may approve on the application of the Public or the Separate School Board through the Public or the Separate School Inspector and with the Inspector's approval.

Before applying for a school, teachers holding this grade of certificate must first apply to the Public or Separate School Inspector of the District or County for a list of the schools in his inspectorate for which teachers with limited Third class certificates may be engaged.

A Board of Trustees which is unable to secure a teacher with a First, Second or Provincial Third class certificate shall apply to the Inspector on a form to be obtained from him, for permission to employ a teacher with a limited Third class certificate. The Inspector, if he approve of such application, shall forward it to the Minister of Education giving his reasons for his approval and transmitting along with it the teacher's certificate, which the Minister may make valid for the school section as requested.

No teacher shall sign an agreement with any Board of Trustees until his certificate has been made valid for its school by the Minister of Education. Should the teacher wish to engage another school during the period for which his certificate remains valid the endorsement of the certificate by the Minister of Education approving of the new engagement must first be obtained through the request of the Board of Trustees and his application of the Inspector in the manner aforesaid.

EDUCATION DEPARTMENT,

October, 1908.



***Notice to School Inspectors, and Officials, and all other
Persons Incurring Travelling Expenses for, or in
Behalf of, the Education Department.***

In order that all Officials, Inspectors, Examiners, and other persons travelling on behalf of the Education Department may be fully aware of the requirements of the Provincial Audit Department in the matter of travelling expense statements, and that there may be no unnecessary delay in making payments, or correspondence in regard to reports and statements in checking the same, the following is submitted as positively essential in every case:

The first requirement is a full detailed statement in duplicate on the approved form, signed and certified that the expenditure is wholly for the Public Service, accompanied by original vouchers for each and every item of expenditure of *one dollar or over*, excepting ordinary return railway fare. Return railway fares should be taken whenever possible. If in the course of necessary official work, side trips are required and return fares cannot be taken advantage of, a memo. of explanation, in duplicate, must accompany the item. The statements given must be made plain and intelligible, so that every item will be clear and easy to understand. The items requiring vouchers are then:—boat fares, Pullman or sleeper fares, meals on train or boat, hotel or board bills, cabs, livery hire, omnibus or other conveyance, odd meals, postage stamps, stationery and other items that may be legitimately charged to the Public Service. Such items, however, as “tips to waiters”, “shoe shines”, “newspapers”, “shaves”, “hair cutting”, etc., are personal expenses and cannot be properly charged to the Public Service. Hotel or board bills must be receipted and show the number of days and the rate per day. All vouchers should bear a number and correspond with a similar number on the statements. Henceforth all charges made and vouchers not produced therefor, are to be struck off the statements before presentation to the Auditor. Officials should carry a book of blank receipt forms so that vouchers can be obtained with the minimum of trouble.



Apparatus for Physics and Chemistry.

PHYSICS.

*High School, Middle School, and Advanced Public School
Continuation Classes.*

The Pieces Marked with an Asterisk Should Form Part of Individual Sets for Students' Use.

SOUND.

Probable
Cost.

1 Brass Rod for showing the production of Sound by longitudinal vibrations of rods.....		
1 Whistle.....		
*1 Coil Spring, about 1 inch in diameter and 2 feet long.....		
1 Bell in Vacuo.....		
1 Whirling Machine.....		
Cardboard Discs for Whirling Machine to show Reflection of Sound.....		
1 Toothed Wheel with ring of holes to attach to Whirling Machine to illustrate Pitch of Sound.		
1 Toy Trumpet.....		
1 Clamp for Vibrating Plates.....	\$	1 00
2 Brass Plates, one square, one circular.....		2 00
1 Sonometer.....	\$5 00—	10 00
1 Violin Bow.....		0 75
*1 Tuning Fork-A.....		0 25
2 Tuning Forks-C, mounted on Resonance Boxes.....		8 00
1 Small Chain.....		0 15
1 Wave Machine.....		5 00
1 Jointed Tin Tube, 3 metres long, 10 cm. in diameter, with one end tapered to a diameter of 2.5 cm.....		
2 Large Concave Mirrors for Reflection of Sound.....		2 50
1 Large Toy Balloon for showing Refraction of Sound.....		
1 Interference Apparatus.....		5 00
1 Siren (optional).....	\$6 75—	30 00
* Glass Tubes of various sizes and lengths for showing Vibrations of Air Columns.....		1 50
1 Organ Pipe with Glass Front.....		2 50
1 Tambourine to use with the above.....		0 50
1 Manometric Flame Apparatus.....		10 00

See List of
Apparatus
for Lower
School.

HEAT.

See List of Apparatus for Lower School.

LIGHT.

*1 Cardboard Screen with Frame.....		} See List of Apparatus for Lower School.
1 Reflection of Light Apparatus, to be fitted also for Reflection of Sound.....		
*1 Plane Mirror (small).....		
1 Plane Rectangular Glass Tank, to be used also as Pneumatic Trough.....		
1 Port Lumiere.....	\$10 00—\$25 00	
or Projection Lantern.....	\$25 00—100 00	
1 Optical Bench and Photometer, complete with Concave and Convex Mirrors and Set of Demonstration Lenses.....	\$7 50—20 00	
1 Refraction Tank.....	3 50	
1 Rotating Mirror, mounted on stand.....	4 00	
2 60° Glass Prisms.....	2 00	
1 Focusing Lens, large, mounted on stand.....	3 00	
1 Colour Wheel for re-Composition of Light.....	1 50	

ELECTRICITY AND MAGNETISM.

*2 Bar Magnets.....	} See List of Apparatus for Lower School.	
*1 Horse Shoe Magnet.....		
1 Compass.....		
*1 Bar Soft Iron (round, 6 inches long).....		
*1 Sheet Zinc and Sheet Copper (Pair Elements)...		
*1 Galvanoscope, complete.....		
4 Dry Cells.....		
1 Spool Double Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc.....		
4 Small Incandescent Lamp (3 volts).....		
1 Dipping Needle.....		2 50
1 Electric Bell.....		1 00
1 Astatic Pair of Magnetic Needles.....		0 50
Strips of Zinc, Copper, Carbon, Iron, Lead and Platinum to be used in constructing the various forms of cells.....		
1 Water Voltameter.....		2 00
1 Copper Voltameter.....		2 00
1 U-Shaped Tube on stand.....		1 00
2 Coils with Mercury Commutator, for showing Laws of Currents, complete.....		
1 Set of Telegraph Instruments.....		5 00
1 Astatic or D'Arsonval Galvanometer.....		10 00
1 Tangent Galvanometer.....		\$3 50—10 00
1 Apparatus for Showing the Laws of Current Induction and Illustrating the Action of the Dynamo and the Motor.....		25 00
1 Arc Lamp, Simple Regulator.....		5 00
1 Wheatstone Bridge.....		25 00
Instead of the above a Meter Sliding Bridge may be used.		\$5 00—15 00

MECHANICS AND HYDROSTATICS.

*High School Upper School and Advanced Public School
Continuation Classes.*

1 Apparatus to Determine Acceleration Due to Gravity.....	\$ 5 00	
1 Set of Apparatus to Illustrate Forces Acting at a Point—Paral- lelogram of Forces, Triangle of Forces, Polygon of Forces, etc., complete.....	20 00	
1 Set of Apparatus to Illustrate Parallel Forces and Moments in- cluding Levers and different forms of Balance, etc., complete.....	10 00	
1 Set of Apparatus to Illustrate Centre of Gravity and Equili- brium of a Body.....	5 00	
1 Set of Apparatus to Illustrate Laws of Friction.....	5 00	
1 Apparatus for Demonstrating Laws of Fluid Pres- sure		See List of Apparatus for Lower School.
1 Whole Pressure Apparatus.....		
1 U-Shaped Tube, Large.....		
1 Barometer, Graduated and Filled.....		
1 Air Pump. See List of Apparatus, Part I.....		
1 Lift Pump, Glass Model.....		
1 Force Pump, Glass Model		
1 Hydraulic Press, Glass Model.....		

CHEMISTRY.

*High School, Middle School, and Advanced Classes in the Public School
Continuation Classes.*

The items marked with an asterisk are indispensable. When there are two asterisks at least one of the articles should be provided.

APPARATUS.

	PROBABLE COST.
* 1 Blast Lamp, with Blower, where gas is available.....	\$8.00 to \$10.00
or, for kerosene or gasolene.....	5.00
* 2 Bunsen Burners, if gas is used..... each	0.50 to 0.75
or 2 alcohol lamps, 4 oz., copper..... each	0.40
1 Blowpipe (mouth)..... each	0.25 to 1.00
* $\frac{1}{2}$ doz. Test tubes, 8 in. \times 1 in.....	0.60 per doz.
$\frac{1}{2}$ doz. “ 5 in. \times $\frac{3}{4}$ in.....	0.25 “
* 1 doz. “ 4 in. \times $\frac{1}{2}$ in.....	0.15 “
** 2 U Tubes, 6 in. \times $\frac{3}{4}$ in..... each	0.10
3 Beakers, 2 oz..... each	0.10
* 3 “ 4 oz..... each	0.20
3 “ 8 oz..... each	0.30
* 1 lb. glass tubing, soft $\frac{1}{8}$ in. to $\frac{1}{4}$ in.....	0.60
1 lb. “ hard $\frac{1}{2}$ in. dia.....	1.00
* or 1 doz. combustion tubes 8 in. \times $\frac{1}{2}$ in., hard	0.60
2 Tubes 18 in. \times $\frac{1}{2}$ in. closed at one end..... each	0.10
2 Gas jars 18 in. \times 2 $\frac{1}{2}$ in..... each	0.85 to 1.00
* 3 Flasks, 250 cc, necks $\frac{3}{4}$ in. dia..... each	0.20
** 3 “ 500 “ 1 in. “..... each	0.25
3 Funnel (Thistle) tubes, 10 in..... each	0.10
** 3 Funnels, 3 in..... each	0.15
1 Tube 2 in. \times 18 in., open..... each	0.15

* 1	Eudiometer, graduated to $\frac{1}{5}$ cc, 50 cc.....	\$ 2.00
* 1	Burette, graduated to $\frac{1}{5}$ cc, 50cc.....	1.00
* 1	Retort, stoppered, 4 oz.....	0.25
1	“ “ 8 oz.....	0.35
2	Pipettes, 1 curved.....	0.15
* 1	Measuring Glass, graduated to cc, 100cc...	0.75
1	Thermometer, chemical.....	0.50 to 1.00
* 1	Lamp Chimney, large.....	0.10
** 2	doz. bottles, stoppered, narrow, 2 oz.....	1.00 per doz.
1	doz. “ “ wide, 2 oz.....	1.00 “
3	doz. bottles, cork, narrow.....	0.30 “
1	doz. “ “ wide, 4 oz.....	0.30 “
* $\frac{1}{2}$	doz. Pickle bottles, or pt. Preserve Jars.....	0.30
* 1	Electrolytic Apparatus.....(See list of Physical Apparatus)	
3	Winchesters, $\frac{1}{2}$ gal. bottles for gas storage ea.	0.25
* 3	Rubber stoppers, 2 holes, $\frac{7}{8}$ in. small end “	0.10
3	“ “ 1 hole, $\frac{5}{8}$ in. “ “ “	0.08
* 2	yds. Rubber Tubing, $\frac{3}{16}$ inside, red.....	0.10 per ft.
2	“ “ “ “ “ “.....	0.12 “
** 3	Pinch cocks, medium.....	each 0.20
* 1	Set cork borers, $\frac{1}{8}$ in.— $\frac{1}{4}$ in.....	
1	Piece platinum wire No. 32, 1 ft.....	0.80
* 4	Dry cells.....	each 0.30
* 10	ft. silk covered copper wire, No. 24.....	0.15
* † 1	Induction coil, small.....(See list of Physical Apparatus)	
* 1	sq. ft. wire gauze, brass, fine.....	0.50
* Pieces	mica.....	0.10
Pieces	stovepipe iron.....	
* 1	Retort stand, 3 rings.....	1.25
* 1	Clamp stand.....	1.50
* Blocks	for stands.....	
1	Balance to weigh with set weights.....	12.00 to 20.00
* 1	Package picture wire.....	0.10
* 1	Copper retort for oxygen.....	2.50
3	Test tube brushes.....	each 0.10
1	Spool soft iron wire.....	0.10
1	Mortar and pestle, 4 in.....	0.50
1	Pair iron forceps (tongs) 6 in.....	0.50
1	Pair pliers, wire cutting.....	0.60
* 2	Files, one round, one triangular.....	each 0.15
* 4	Soup Plates.....	0.20
* 2	doz. corks, assorted.....	0.10
* 1	Package filtering paper, circles, 6 in.....	0.25
* $\frac{1}{2}$	doz. sheets Litmus paper.....	0.30
* Candles	.....	0.10

CHEMICALS.

* Zinc, granulated, 1 lb.....	0.20
Lead clippings (sheet).....	0.20
* Copper clippings (sheet or wire), 1 lb.....	0.50
* Iron filings, 1 lb.....	0.05
Antimony metal, 1 oz.....	0.15
* Magnesium, wire or ribbon, $\frac{1}{2}$ oz.....	0.40

† A Friction Electric Machine may be used with the Eudiometer instead of cells and coil.

* Charcoal	0.25
Coal, pieces of hard and soft	
* Mercury, 1 lb.	1.00
* Sodium, 1 oz	0.25
* Potassium, 2 drams or 1 oz	0.25 dr., 1.50 oz.
Litharge, 2 ozs	0.05 oz.
* Red Lead, $\frac{1}{4}$ lb.	0.40 per lb.
* Oxide of Mercury, red, 1 oz	0.25
* Oxide of Copper, 1 oz	0.15 oz.
* Ferric Oxide (iron rust, dried)	
* Manganese Dioxide, $\frac{1}{2}$ lb.	0.10
* Barium Dioxide, 2 ozs	0.10 oz
Calcium Oxide, (lime, lumps)	
Arsenious Oxide, 2 ozs	0.15 oz.
* Sodium Hydroxide, 4 ozs., 1 lb. in bottle	0.75, 0.25
Phosphorus, yellow, 2 oz	
Phosphorus, red, 1 oz	
Potassium Hydroxide, 1 lb. in bottle	0.75
* Potassium Iodide, 1 oz	0.30
Potassium Chlorate, 1 lb	0.25
Potassium Chloride, 1 lb	0.40
Potassium Nitrate, $\frac{1}{2}$ lb	0.40 0.20
Potassium Sulphate, $\frac{1}{4}$ lb.	0.50 per lb
Potassium Bichromate, 2 ozs	0.10 oz.
Potassium Ferrocyanide, 2 ozs	0.10 "
Potassium Permanganate. 2 ozs	0.15
* Sodium Nitrate, 1 lb.	0.40
* Sodium Chloride, 1 lb.	0.05
Barium Chloride, $\frac{1}{4}$ lb.	0.20
Barium Nitrate, $\frac{1}{4}$ lb.	0.20
* Calcium Chloride, lumps	
* Iron Sulphate, 1 lb	0.30
* Iron Sulphide, 1 lb	0.15
Mercuric Chloride, 1 oz	0.25
* Ammonia Solution, 1 qt.	0.30
* Ammonium Nitrate, 1 lb	0.30
* Ammonium Chloride, $\frac{1}{2}$ lb	0.30
* Ammonium Carbonate, $\frac{1}{2}$ lb	0.30
* Silver Nitrate, 1 oz.	0.80
* Copper Sulphate, 1 lb	0.10
* Calcium Carbonate, lumps of limestone, calcite, chalk, animal shells	
* Carbon, specimens of coal, charcoal, graphite, lampblack, animal black, soot, $\frac{1}{4}$ oz. each	0.30
Magnesium Sulphate, 1 lb	0.10
Magnesium Oxide, 2 ozs	0.25
Litmus, 1 oz., lumps	0.15
Tumeric, 1 oz., powder	0.10
* Iodine, 1 oz	0.50
* Starch, 2 ozs	0.05
* Indigo, 1 oz	0.25
* Logwood, extract, 1 oz	0.10
Aniline Violet (magenta). 1 dram	0.15
Carbolic Acid, 2 ozs	0.10
* Turpentine, 4 ozs	0.10

	Benzene, 4 ozs.....	\$ 0.10
	Gasolene, 4 ozs.....	0.10
*	Paraffin (white wax), 1 lb.....	0.15
*	Sulphur, powder, 1 lb.....	0.10
*	Sulphuric Acid, 10 lbs.....	0.05 per lb.
*	Nitric Acid, 2 lbs.....	0.05 "
*	Hydrochloric Acid, 2 lbs.....	0.05 "
*	Oxalic Acid, 1 lb.....	0.40
*	Pumice Stone, lumps, $\frac{1}{2}$ lb.....	0.10
*	Sodium Carbonate, 1 lb.....	0.05
	Plaster of Paris.....	0.10

*Upper School, High School, and Advanced Public School
Continuation Classes.*

APPARATUS

$\frac{1}{2}$	doz. hard glass test-tubes, 8 x 1 inch.
1	" " " 5 x $\frac{3}{4}$ inches.
1	" " " 4 x $\frac{1}{2}$ "
3	Porcelain crucibles with covers.
3	Evaporating dishes, glazed, 2-3 inches.
3	Beakers, glass, $\frac{1}{2}$ litre.
3	Flasks, 1 litre, with two holed rubber stoppers.
1	Sand bath.
1	Water bath.
1	Funnel with stopcock.
2	Chemical Thermometers.
2	Burettes with pinchcocks.
1	Clamp stand.
1	Tripod stand.
2	Gas jars, 1 litre, with ground rims, glass covers.
$\frac{1}{2}$	doz. combustion tubes.
1	lb. hard glass tubing.
1	Lead dish, 2 x 3 inches.
2	doz. Reagent Bottles, 2 ozs.
1	" " " 4 ozs.



List of Apparatus

*For the Experiments in the Elementary Science of the Public School
Fifth Form and Continuation Class Courses, and of the Lower
School of the High School.*

	Probable Cost.
1 Metric Scale, one foot long. The ordinary School rulers graduated in inches and centimeters will answer	\$0 02
1 Meter Stick.....	0 50
1 Caliper, Simple form.....	0 50
1 Dissected Litre Block.....	2 00
1 Pinch-Cock.....	0 15
1 Burette, Mohr's, 50 C.C. graduated in tenths.....	2 00
1 Measuring Cylinder, 100 C.C. graduated.....	0 80
3 Beakers, different sizes.....	0 55
1 Air Pump and Receiver.....	10 00
1 Elastic Rubber Balloon. A toy balloon answers well.....	0 10
1 Pendulum Bob.....	0 25
1 Physical Balance, with set of Metric Weights.....	8 50
1 Spirit Lamp or Bunsen Burner.....	0 40
1 Spring Balance.....	0 50
1 Glass Battery Jar, 9 in. deep, 8 in. diam.....	0 50
1 Mortar and Pestle.....	0 35
2 Thistle Tubes..... Each 15.....	0 30
1 Transmission of Pressure Apparatus.....	0 75
1 Archimedes Principle.....	1 75
1 Globe for Weighing Air.....	3 00
1 Barometer Tube, heavy glass.....	0 50
1 Mariotte's Law Tube.....	1 50
1 Lift Pump, Glass Model.....	1 25
1 Force Pump, Glass Model.....	1 25
1 Hydraulic Press, Glass Model.....	2 00
1 Filter Funnel.....	0 10
1 Retort Stand (two rings).....	0 50
3 Small Florence Flasks with perforated rubber corks to fit.....	0 45
1 Florence Flask with wide mouth.....	0 25
1 Rubber Cork with two holes to fit Florence Flask with large mouth.....	0 15
1 Hydrometer Jar.....	0 45
1 Porous Cup.....	0 70
1 Specific Gravity Bottle.....	0 75
1 Weighted Wooden Prism, 1 square centimeter in section.....	0 25
1 Tuning Fork, simple form.....	0 20
1 Brass Rod for showing the production of Sound by longitudinal vibrations of rod.....	0 30
1 Whistle.....	0 10
1 Coil Spring, about 1 in. in diameter and 2 feet long.....	0 25
1 Bell in Vacuo.....	1 50

1 Glass Tube about 2 cm. in diameter and 30 cm. long.....	\$0 15
1 Glass Tube, about 3 cm. in diameter and 50 cm. long.....	0 30
1 Whirling Machine.....	3 50
Cardboard Discs for Whirling Machine to show reflection of sound	0 50
1 Toothed wheel with ring of holes to attach to whirling machine to illustrate pitch of sound.....	2 00
1 Spool Piano Wire.....	0 10
1 Toy Trumpet.....	0 10
1 Ball and Ring.....	1 00
1 Compound Bar.....	1 00
1 Thermometer, graduated in both Centigrade and Fahrenheit De- grees.....	1 00
1 Differential Thermometer.....	2 50
1 Calorimeter.....	2 00
1 Conductometer.....	1 50
1 Cardboard Screen with frame.....	0 50
1 Reflection of Light Apparatus to be fitted also for reflection of sound.....	3 00
1 Plane Mirror (small).....	0 25
1 Convex Lens (Reading Glass will answer).....	0 50
1 Triangular Glass Prism.....	0 50
Pieces of Red, Green and Blue Glass.....	0 10
Lodestone, (small piece).....	0 50
2 Bar Magnets.....	0 50
1 Horse-shoe Magnet.....	0 25
1 Compass.....	0 25
1 Bar Soft Iron, Round, 6 in. long.....	0 20
Sheet Zinc and Sheet Copper (Pair Elements).....	0 15
2 Dry Cells..... each 35	0 50
1 Spool Double-Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc.....	0 30
1 Small Incandescent Lamp (3 volts).....	0 25
1 Pneumatic Trough.....	0 40
4 Glass Bottles, (Pickle bottles will answer).....	0 10
4 Glass Slips, 2 inches square to cover mouth of bottles.....	0 05
3 Soup Plates.....	0 20
3 Hard Glass Test Tubes.....	0 30
1 Test Tube Rack.....	0 25
4 Reagent Bottles 4 oz.....	0 50
$\frac{1}{2}$ Doz. Test Tubes, 5 in. \times $\frac{3}{4}$ in..... per doz.....	0 25
1 Doz. " " 4 in. \times $\frac{1}{2}$ in..... " ".....	0 15
2 U-Tubes, 6 in. \times $\frac{3}{4}$ in..... each.....	0 10
1 lb. Glass Tubing, (soft) $\frac{1}{8}$ in. to $\frac{1}{4}$ in.....	0 60
1 Retort, stoppered, 4 oz.....	0 25
1 Lamp Chimney, (large).....	0 10
1 Electrolytic Apparatus.....	1 25
2 yds. Rubber Tubing $\frac{3}{16}$ in. inside, red..... per ft.....	0 10
Pieces of Mica.....	0 10
1 Package of Picture Wire.....	0 10
2 Files, one round, one triangular..... each.....	0 15
2 Doz. Corks, assorted.....	0 10
1 Package Filtering Paper, Circles, 6 in.....	0 25
Candles.....	0 10
$\frac{1}{2}$ Doz. Sheets Litmus Paper.....	0 30
1 Sq. ft. Sheet Rubber..... per sq. ft.....	0 25
Wire Gauze.....	0 15

Sealing Wax	large stick....	\$0 25
1 Small Vise for clamping wires		0 40

CHEMICALS.

Zinc, granulated, 1 lb.....	0 20
Copper clippings (sheet or wire) 1 lb.....	0 50
Iron Filings, 1 lb.....	0 05
Charcoal, (may be had from plumber).....	0 25
Coal, (pieces of hard and soft)	
Mercury, 2 lbs.....	2 00
Sodium, 1 oz.....	0 25
Potassium, 2 drams.....dram....	0 25
Oxide of Mercury, red, 1 oz.....	0 25
Oxide of Copper, 1 oz.....	0 15
Manganese, dioxide, $\frac{1}{2}$ lb.....	0 10
Calcium oxide, (Lime, lumps).....	
Sodium, hydroxide, $\frac{1}{4}$ lb.....	0 25
Potassium chlorate, 1 lb.....	0 25
Potassium nitrate, 4 oz.....	0 10
Potassium permanganate, 2 oz.....	0 15
Calcium chloride (lumps).....	
Ammonia solution, 8 oz.....	0 10
Ammonium nitrate, 4 oz.....	0 10
Ammonium chloride, 6 oz.....	0 10
Calcium carbonate, lumps of limestone, calcite, chalk, animal shells.....	
Carbon, specimens of coal, charcoal, graphite, lampblack.....	
Sulphuric acid, 1 lb.....	0 05
Nitric acid, 1 lb	0 05
Hydrochloric acid, 8 oz.....	0 05
Yellow Phosphorus, 1 oz.....	0 05

BOTANY AND ZOOLOGY.

For the work in Botany and Zoology it is desirable that each pupil should have a pocket magnifier (30-50 cents). A compound microscope (\$11.00) should also form part of the school equipment for this work. These, together with a dozen glass slips and cover glasses and a couple of needles mounted in wooden handles will be found to be all that is necessary for the course. Breeding cages for observing the development of insects may be made from waste crayon boxes or soap boxes by covering one side or end with mosquito netting or a pane of glass.

GENERAL.

A small cupboard should be provided for storing apparatus and chemicals, and a simple laboratory table for carrying out experiments. The table should be kept for this use alone where there is no laboratory.



Rural Schools.

Equipment for Domestic Science, Constructive Work, and School Gardens.

DOMESTIC SCIENCE.

2 Granite saucepans, No. 10.....	\$0 30
2 “ “ (two sizes larger).....	40
1 Granite dishpan, eight quart size.....	35
1 Tin pudding dish.....	20
1 Tea-kettle, flat bottom, No. 6.....	60
1 Stewpan, straight sided, quart size.....	20
3 Bowls, white soup bowls No. 12, each.....	05
3 Plates, dinner size, white, No. 22, good quality.....	25
(the above are to be good quality granite)	
1 Dover egg beater.....	10
1 Egg beater.....	05
2 Measuring cups, marked in $\frac{1}{4}$, $\frac{1}{2}$	10
1 Grater.....	05
1 Small steamer, and kettle to fit.....	50
1 Cake tin, 8 x 5 x 2 in.....	20
1 Strainer or Sieve.....	15
1 Towel rack. 4 leaved screen shape, cheaper one would do.....	50
1 Meat board, hardwood, 10 x 12 in. 1 in. thick.....	15
3 Wooden spoons.....	15
2 Mixing bowls, 1 and 2 quart size.....	50
1 Jug, 1 quart size.....	20
2 Salt and pepper shakers (one each).....	25
1 Tea-pot, pint size, Brown Globe.....	20
6 Pint fruit jars, for holding supplies.....	30
1 Lemon reamer.....	10
1 Crock, for garbage, with cover.....	25
3 Frying Pans, Acne, size 00, (1 would do if teacher does cooking).....	15
1 Can opener.....	10
6 Teaspoons.....	25
3 Tablespoons.....	25
6 Knives and forks, 3 forks would do.....	75
3 Paring knives (2 would do).....	30
1 Spatula.....	30
1 Rolling pin.....	15
1 Pastry Board.....	25
6 Dish towels.....	75
3 Dish cloths.....	15
3 Scrub cloths.....	15
3 Dusters.....	15
1 Blue Flame stove, two burners, improved make, with oven.....	8 60
or single coal oil stoves \$1.00 each, but these are not so good.	

Additional equipment desirable, but not essential.

1 Kitchen table with drawer, might use table in room.....	2 50
1 Flour box.....	45
6 Cups and saucers (fewer would do).....	50
6 Medium size plates " " ".....	40
1 Jug, 1 pint size.....	15
1 Carving knife and fork.....	1 00
1 Pair scissors.....	25
Miscellaneous. Soap dish, hammer, cork screw, floor cloth, salt box, thermometer, wire strainer, dust pan, clock, etc., about..	2 00

The above list gives an approximate cost of a very simple equipment, but one with which good work could be done, and some individual work, say, three pupils working together. The kitchen table could be fitted with a framework underneath with doors, in which the utensils could be kept when not in use, and locked so as to prevent pupils tampering with them. The teacher may omit or add to the above as the requirements of the special case may demand. Table setting and serving may be taught on the kitchen table, when a tablecloth and sufficient dishes may be borrowed for the occasion if considered too expensive to purchase.

The cost might be reduced to about \$12.00.

Attention should also be paid to needlework. The equipment for this is generally owned by each girl; scissors, rule, needle and thimble being all that is really necessary. When cutting out is done any flat top table may be used.

CONSTRUCTIVE WORK.

25 pairs of scissors 5 inches.....	\$5 00
6 Knitting needles.....	30
24 Pencil compasses.....	2 00
6 Ticket punches.....	1 50
24 Mill boards 12 inches x 12 inches.....	1 00
24 Rulers.....	1 25
25 Pencils.....	50

A box or tray should be provided to keep the above equipment when not in use. By arranging that all the classes shall not work at the same time, the equipment may be made to serve a large number. Most children will have rulers and pencils of their own, and, if necessary, they could be asked to bring scissors from home. The knitting needles are for "scoring." They should be broken in two and the broken end thrust into whittled wooden handles making twelve scoring points. The mill boards are for protecting the tops of the desks, but sheets of newspaper may be substituted where it is desirable to reduce the expense. The scoring points may be used instead of punches, or a stout wire nail will make a very satisfactory hole through paper or thin cardboard. Brown paper, old copy book covers, and cardboard boxes may all be utilized in this work, thus reducing the expense for material.

For clay modelling, all the equipment that is necessary is an earthenware crock in which to keep the clay. It should be covered by a damp cloth and sheets of newspaper. There should also be some brown paper or oilcloth to cover the desks.

SCHOOL GARDENS.

Individual plots should vary from six feet square to six feet by ten according to the age and capacity of the pupil. If the plots are larger two pupils should work together. Twenty feet square is a convenient size for class plots in which experimental work with potatoes, corn, clover, cabbage, tomatoes, etc., may be conducted. In the larger schools two hours per week will be required, while in the smaller, one hour will suffice. There should be a garden shed about ten by twenty feet for storing tools and carrying on work not suitable to the class room, such as analysis of soils, selecting seeds, making labels, potting plants, etc. (See Minister's Report 1904, page xxx.)

Implements.

12 Six-inch light weeding hoes.....	\$3 50
12 Ten-inch steel rakes, light, ten-tooth.....	4 50
18 Claw hand weeders.....	1 35
2 Light (flat) short-handled shovels.....	1 50
2 " " spades.....	1 50
1 " " digging fork.....	75
3 Transplanting trowels.....	50
1 100-foot garden line and reel.....	90
1 50-foot tape line.....	50
1 Wheel-barrow.....	2 50
1 Lawn mower.....	3 75
1 Spray pump.....	3 50
1 Light hatchet.....	50
1 Light hand saw.....	1 00
1 Two-foot rule.....	25
1 Try-square.....	40
1 Small plane.....	75
1 Flat file.....	15

The foregoing equipment is the minimum for a school of 25 to 30 pupils. The number of hoes, rakes and hand-weeders might each safely be put at one for every two pupils in average attendance. For average school the cost need not exceed \$25.

Vegetable Seeds.

1 peck improved variety of potatoes; 1 lb. beans, 2 varieties; 1 lb. sugar corn, 2 varieties; $\frac{1}{4}$ lb. beets, 2 varieties; 1 oz. carrots, 2 varieties; $\frac{1}{2}$ oz. seed onion, 2 varieties; 2 oz. radish, 2 varieties; 1 oz. lettuce, 2 varieties; 1 oz. parsnip; 1 oz. turnip; 1 pkt. cucumber; 1 pkt. cress; 1 pkt. kale; 1 pkt. kohlrabi; 1 pkt. summer savory; 1 pkt. sage.

The following to be started in a hot bed or window box: 1 pkt. cauliflower; 1 pkt. Brussels sprouts; 1 pkt. celery; 3 pkts. cabbage, 3 varieties; 3 pkts. tomato, 3 varieties. Estimated cost.....\$2 00

Flowering Annuals.

To be started indoors or in hot bed: 3 pkts. aster, mixed or 3 named varieties; 2 pkts. balsams, mixed; 2 pkts. dianthus (pinks); 1 pkt. pansy; 1 pkt. petunia; 1 pkt. portulaca; 2 pkts. phlox Drummondii grandiflora; 1 pkt. Ricinus (Castor bean); 1 pkt. scarlet sage; 1 pkt. salpiglossis; 1 pkt. sweet scabious; 1 pkt. ten-week stocks; 1 pkt. verbenas.

For open planting: $\frac{1}{2}$ oz. sweet alyssum; $\frac{1}{2}$ oz. candytuft; $\frac{1}{2}$ oz. mignonette; 2 pkts. dwarf nasturtium; 2 pkts. Eschscholtzia (California poppy); 2 pkts. Shirley poppy; 1 pkt. double mixed poppy; 1 pkt. tall nasturtium; 1 pkt. mixed sweet peas; 1 pkt. double hollyhock (biennial); 1 pkt. Russian sunflower. Estimated cost.....\$2 00



DEPARTMENTAL REGULATIONS.

EQUIPMENT RECOMMENDED FOR A GYMNASIUM.

The apparatus marked † is indispensable. Except where the number required is specially mentioned, enough of each kind of machines should be supplied to provide for the largest class under instruction. For the use and a description of the machines see MacLaren's Physical Education : MacMillan & Co.

FOR BOYS.

- † Wooden Dumb Bells.
- † Indian Clubs.
- † Vertical ropes of manilla, three pairs—1 inch, 1¼-inch, 1½-inch—the ropes to hang about 20 inches apart.
- † Two horizontal Bars—one at least to be adjustable to different heights.
- † Two pairs Parallel Bars—one pair to be at least 6 feet long ; height from ground, 4 feet 8 inches ; diameter of bars, 2 inches ; distance apart 17 inches. One pair to be at least 7 feet long, height from ground, 4 feet 5 inches ; diameter of bars, 1¾ inches ; distance apart, 15 inches.
- † Flying Rings—two pairs.
- † Two Single Trapezes.
- † Rifles or Wooden Rifles.
- † Horizontal Ladder.
- † Travelling Rings—at least six.
- Chest-weight Machines.
- Rowing machines.
- Vertical and Slanting Poles.
- A Rosary.
- A Mast.
- Leaping Poles.
- A Horizontal Beam.
- A Wooden Vaulting Horse.
- Two Planks—plain and bridged.
- The Prepared Wall.

FOR GIRLS.

- † Wooden Dumb Bells.
- † Wands.
- † Indian Clubs.
- Chest-weight Machines.





To Boards of Trustees and the Principals of High and Continuation Schools and Collegiate Institutes.

APPROVED SCHOOLS.

The scheme of "Approved Schools" will go into full operation in September. It will, accordingly, be expedient for the Principals of High and Continuation Schools and Collegiate Institutes to consider carefully the conditions of approval as outlined in Circular 19 (October, 1907), and amplified in Circular 12 (January, 1908). Special attention is now called to the most important requirements of the scheme, and some directions are given with a view of aiding the Inspectors and the Principals in making it effective:

(1) The Accommodations of the school, especially the laboratory provision for the teaching of Science, shall be both adequate and suitable.

(2) The Equipment shall be at least the minimum prescribed in Regulation 30, (3), and Regulation 34, for new High Schools; that is, for Library, \$300; for Scientific Apparatus, \$300; for Maps, Charts, and Globes, \$50; for Art Models, \$50.

(3) The staff, which shall consist of at least two members, shall be duly qualified and competent to teach the subjects under their charge. In particular, the teachers in charge of the Reading, Writing, Spelling, Book-keeping and Business Papers, Art, Biology, Geography, English Grammar, and Arithmetic and Mensuration of the Lower School, shall be so adjudged by the Inspector.

(4) The organization of the whole school shall meet the demands of the Regulations and the necessities of the situation. Schools in which any of the Forms are so large as to interfere with the efficiency of the teaching, shall not be approved. While suitable subjects may receive more stress at one time than at another, the system of "inter-mitting" should not be practised in the case of any of the nine subjects enumerated in (3) immediately preceding. In Art and Science, in particular, a proper sequence should be observed in taking up the details, and pupils who are promoted during the school year should have an opportunity of completing the parts of the courses they may have omitted.

In order to reduce the pressure in the Lower School, Reg. 40 (2), p. 9, of Circular No. 19, Oct., 1907, is now modified as follows:

The minimum time prescribed for Elementary Science shall be:—

(a) For Biology, a lesson in each year of the Lower School, of thirty minutes every day during the months of September and October and from the beginning of April to the end of June; or the equivalent thereof.

(b) For Physics and Chemistry, a lesson, in each year of the Lower School, of thirty minutes three times a week, or the equivalent thereof, during the rest of the school year.

(5) The courses in Botany, Zoology, Physics, and Chemistry shall be taken up practically throughout. A recent investigation among the prospective teachers in the Faculties of Education and the Normal Schools has revealed an unsatisfactory condition of affairs in the matter of practical work in Science done by the pupils, especially in Physics, in all the forms of a very large number of the High and Continuation Schools and Collegiate Institutes of the Province. Regulation 2 (2), (b) of Circular 19, Oct., 1907, provides that the official form of application for admission to the Entrance Examination of any of the professional training schools shall include a certificate signed by the Principal that the candidate has taken up practically the course in Science. It is the duty of each School Board to provide adequate equipment and accommodations and of the Science Master to comply with the foregoing requirements. Without these, the Principal cannot give the certificate.

(6) The pupils' work in Art, Science, and Book-keeping shall be satisfactory. The complete Exhibits of the school year (September to June) in these subjects should be collected by the Principal and held for the Inspector's examination and rating. The pupils' work of the current year should also be ready for separate inspection. In Art and Science all Exhibits should indicate by an intelligible system of dating, when the work was done; and the sheets submitted for examination should, as far as possible, be arranged in the order in which the work was accomplished. Care should be taken to keep separate the first year work and the second year work of each pupil.

(7) Special attention should be given to Reading and Writing.

There is unfortunately good ground for believing that, under the examination system, these subjects have not hitherto received the attention their importance demands.

Regulation 40, (1), should be closely followed :

The average minimum amount of time to be devoted each week to Reading shall be two lessons of thirty minutes each for two years in the Lower School, the average number of pupils in each class being not more than twenty-five and the time being increased or diminished when the average in the class is greater or less than twenty-five. Reading shall also be taken up systematically in connection with English literature.

Regulation 39, (4), with respect to the obligatory status of Writing (as separate from Book-keeping), should also be closely followed, proper methods of instruction should be observed; and the work should be continued throughout the first year or until the pupils have acquired a graceful legible business hand.

As to Spelling : The Principal should by adequate tests determine to what extent special instruction may be necessary.

(8) As the work of inspection during the past year has revealed in a large number of schools grave deficiencies in one or more of the requirements outlined above, the Principal should in September organize classes for those pupils of the Middle School who may not have thoroughly completed the courses prescribed in Regulation 6 (Circular 19). Here the Principal may be reminded that the transference to the Normal

Schools of the Special Middle School Courses for Teachers in the subjects of English Grammar and Arithmetic and Mensuration will make it possible for him to supplement deficiencies in Lower School subjects.

(9) Hereafter pupils who enter Approved Schools from Non-approved Schools should not receive standing in the Approved School on the basis of their former standing in the Non-approved School. The Principal of the Approved School should require such pupils to pursue under his supervision the full Lower School Course in the enumerated subjects unless after investigation and examination he finds in exceptional individual cases that credit may safely be given for work in the Non-approved School.

(10) It must be clearly understood that the Departmental approval of a School gives neither approval nor standing to any of its pupils. The Principal of an Approved School is the sole arbiter of the standing of individual pupils. It is not necessary that the privileges conferred by the Departmental approval should be acted upon. It is, however, necessary that, if they are acted upon, the Principal shall take the responsibility of recommending individual pupils under the Approved School System. The Principal's responsibility may, however, be rendered less irksome, if, as occasion may arise, he reports backward or careless pupils to their parents or guardians, who also have an important responsibility in any scheme of education.

PRIVATE SCHOOLS.

On application to the Deputy Minister of Education, Private Schools may be approved if, on inspection, they comply fully with the conditions set forth above and in Circular 12, Jan., 1908, and Circular 19, Oct., 1907, for High and Continuation Schools and Collegiate Institutes. For the school year of 1908 to 1909, such reasonable consideration will be shown these schools as is not inconsistent with the efficient working of the scheme. A fee of \$25, payable in advance, will be charged for inspection; but, in the case of approval, the fee will be returned.

HIGH SCHOOL INSPECTION.

For over twenty years the work of High School inspection has been carried on by two officers, although, during that period, the number of pupils and of teachers has more than doubled. In order to increase the efficiency of the work, a third Inspector has just been appointed. With three Inspectors, not only can more time be given to the ordinary work of inspection, but the Inspectors will be able to examine classes, especially the classes which come directly under the Approved School Scheme. The policy of the Education Department is to reduce the evils that accompany any examination system and to increase the influence of the Teacher and the Inspector. In the administration of the system, just and reasonable consideration will be shown where such consideration is expedient; but it should be clearly understood that the allowances which were made during the last school year will not be continued, and that Regulations which have been made for the advancement of education will now be duly enforced.

EDUCATION DEPARTMENT,
August, 1908.



The use of the Public Hall of the Education Department.



MEMORANDUM.

The Public Hall of the Education Department is for the use of the Normal and Model Schools, and for the meetings of The Ontario Educational Association, which have to do with matters directly affecting questions for which the Education Department is responsible.

The use of the Hall is not granted for such meetings, or entertainments as would ordinarily be held in public halls of the City, and for which a stipulated rent is paid.

With the consent of the Minister of Education the use of the Hall and adjacent rooms may be granted by the payment in advance of \$10 for the day or evening to cover the necessary expenses of heating, lighting, cleaning and attendance of the caretaker, for meetings of an educational, musical, or philanthropic character, provided no admission fee is charged.

Toronto, August, 1900.

SYLLABUS

OF THE

High School Course

IN

Mediaeval and Modern History

1908



WARWICK BROS & RUTTER, Limited, Printers,
TORONTO.



THE HIGH SCHOOL COURSE IN MEDIAEVAL AND MODERN HISTORY.

For the High School Upper School Course in History (British, Mediaeval, and Modern) prescribed on page 71 of the Regulations of 1904, the following has been substituted:

General outline of Mediaeval and Modern History, with special reference to British History. The Geography relating to the History prescribed.

On this course the examination of 1909 for Entrance into the Faculties of Education will be based.

The following syllabus of the course has been prepared for the teacher's guidance:

SYLLABUS.

It is an advantage to pupils in Canadian schools, though in geographical situation remote from Europe, that they still are citizens of the British Empire, have close connections with Europe and a special interest in its history. They will do well to approach the history of Europe through that of Great Britain. Of all the modern European states it has the longest and the most striking history. England was the pioneer in that greatest development of modern times—constitutional government. So it is true that in studying European history students should keep always in mind contemporary events in England.

The old-fashioned practice of committing to memory the list of the Kings of England with the chief dates of their reigns is eminently wise; only when some such outline is fixed indelibly in the mind have we any true basis for the accurate grouping of historical events. If the environment in time of events should thus always be kept in mind, so too should that of place. An understanding of the geography of a country is indispensable to the proper study of its history. The character of a people is profoundly influenced by the climate in which they live, the fertility of their soil, and their situation, whether maritime or inland. The teacher should put clearly and simply before his classes the main geographical features of Europe and the British Isles, noting especially the more important mountain ranges and river valleys, and giving some examples of their bearing upon the history to be studied.

BOOK OF REFERENCE.—Mackinder: Britain and the British Seas. Heinemann, London.

I. MEDIAEVAL HISTORY.

The Roman Empire.

The growth and extent of the Empire. The government and the life of its citizens and subjects. Britain as a Roman province.

For these topics the teacher should make use of slides.* He can thus, for example, illustrate very fully the Roman occupation of Britain.

Evidences and causes of decline.

BOOK OF REFERENCE.—Dill: "Roman Society in the Last Century of the Empire." The Macmillan Co., Toronto.

Christianity within the Empire.

The relations of the government with Christianity. Diocletian. Constantine. The life of Jerome or of Augustine as illustrating the Christian attitude toward Roman society during its decline.

BOOK OF REFERENCE.—Bigg: The Church's Task under the Roman Empire. The Oxford Press, Toronto.

The Barbarian Invasions.

How far were the invasions a new or alarming phenomenon?

The Goths. The Emperor Theodosius. Alaric. Stilicho. The Huns, Attila. The Vandals. The Burgundians. Odoacer.

The teacher should not attempt any detailed outline of the invasion. He can point out on a map the chief lines of attack, and should refer only to the most conspicuous names and dates. The habits and customs of the Germans he can describe to the best advantage when dealing with the Angles, Jutes, and Saxons. He should picture their life in peace and war, the character of their invasion of Britain, the destruction of British civilization, and should contrast their settlement in Britain with that of the other German peoples in the more thoroughly Roman provinces of the Empire.

BOOKS OF REFERENCE.—Hodgkin: The Dynasty of Theodosius. The Oxford Press, Toronto.

Hodgkin: The Political History of England, Vol. 1. Longmans & Co., London.

Vinogradoff: The Growth of the Manor. The Oxford Press, Toronto.

Grant Allen: Anglo-Saxon Britain. Society for Promoting Christian Knowledge, Charing Cross, London.
The Musson Book Co., Toronto.

Europe after the Invasion.

The territories occupied by the surviving peoples should be shown on the map, and the attempt of Theodoric the Goth to create a peaceful barbarian kingdom in Italy should be discussed very briefly.

*Classified catalogue with prices can be obtained from William Ran, Chesnut and 13th Streets, Philadelphia; Levy et fils, 46 Rue Letellier, Paris; George Philip and Son, 32 Fleet Street, London, England; J. P. Gibson, Hexham, England.

The reign of Justinian marks the survival of the Roman Empire, now become an Eastern despotism based on Roman law, the Roman bureaucracy and army, and Greek trade and finance, allied with the Church, and bent on re-establishing itself in the West. The personality of Justinian is an elusive one, and makes little or no appeal to young students: the Eastern situation is quite beyond them; hence the subject should be very lightly touched upon, and should give place at once to the two topics below.

BOOKS OF REFERENCE.—Hodgkin: *Theodoric, the Goth. Heroes of the Nations*. G. P. Putnam's Sons, New York.

Bury: *History of the Later Roman Empire*. The Macmillan Co., Toronto.

The Church.

The Bishop of Rome; his position in the Church and in Italy; his relation to the Empire and to foreign powers. The life of Gregory the Great should be studied carefully in this connection; he grew up among the ruins of Imperial Rome, abandoned the Imperial service for the service of the Church, and by his conduct of affairs in Italy, his government of the Church, his missionary efforts, his theological writings, extended and developed the influence of the ecclesiastical authority. He took advantage of the growth of

Monasticism which, upon spreading from the east to the west, and, assuming a less extreme and more corporate character, had been upheld as the ideal form of Christian life, and, by adopting gradually the rule of Saint Benedict, had gained in strength and vigour throughout Western Europe.

BOOKS OF REFERENCE.—Dudden: *Gregory the Great*. Longmans & Co., London.

The Rule of Saint Benedict in Thatcher and McNeal, *Source Book for Mediæval History*. Scribners, New York.

The Franks.

As to the *Franks*, the important points are:—They made the easiest and shortest migration from their original home in the North, they were greatly influenced by the life and institutions of Roman Gaul, and the adoption of orthodox Christianity by Clovis made them the allies of the Church. Their royal house declined as civilization impaired its native vigour, and the government passed to the Carlovingian family which came from the eastern part of the kingdom, still largely German. The Carlovingians took the crown completed the alliance with the church by defending it in Italy, and created the *Holy Roman Empire*.

Charles the Great can be made a very real figure; his wars, court, interest in building and education, his friends, Alcuin, Eginhard, his personal conduct of the administration, his religious and political aims.

BOOKS OF REFERENCE.—Davis: *Charlemagne. Heroes of the Nations*. G. P. Putnam's Sons, New York.

The Empire of Charles the Great.

The Empire was threatened by:

(1) *Feudalism*, which should be studied in the personal side, as involving definite obligations between man and man, and as a necessary outcome of previous conditions.

BOOK OF REFERENCE.—Thatcher and McNeal, Source Book for Mediæval History.

(2) *National divisions*: Italy, France and Germany begin to appear.

(3) *Barbarian invasions*, renewed by Saracens, Huns and Vikings.

These topics and also those which have gone before, such as Monasticism, and The Influence of Christianity can best be illustrated from English History. English society yielded to feudal influences, tribal divisions delayed national growth, the Viking attacks rendered national union impossible, made the efforts of *Alfred the Great*, *Edgar and Dunstan*, and *Canute* ineffective, and yielded England finally to *William the Conqueror*.

BOOKS OF REFERENCE.—Fletcher: An Introductory History of England. John Murray, London.

Hunt: The English Church from 597 to 1066. Macmillan & Co., Toronto.

Plummer: Life and Times of Alfred the Great. The Oxford Press, Toronto.

The State.

No attempt should be made to follow carefully the political history of Europe, but the development of institutions may easily be traced in England after 1066. The Norman Kings were united with the English people against the Norman barons, and made the alliance firm and lasting by means of a civil service and a judiciary which reached out from the court to the local assemblies. The anarchy of the reign of Stephen showed what a menace the feudal baronage might have become had not Henry II. completed its overthrow. In Richard's absence the machinery of government was improved. The danger was that John would convert the strong centralized monarchy into a tyranny. All classes came together to oppose his attempt. The struggle continued during the greater part of the reign of Henry III. and was ended only when Edward I. summoned the nation to his model Parliament and prepared for the establishment of the maxim "What touches all should be approved by all," as a first principle of the British Constitution. It should be noted by way of comparison that while in France the kings crushed feudalism as in England, they did not foster the local institutions of the people or submit to a Great Charter; the reign and career of Louis IX. bring out the real character of the French monarchy. In Germany on the other hand the feudal barons destroyed the monarchy, because the German kings tried to keep alive the tradition of the Roman Empire, and with this object spent much time and energy in Italy. Italy, itself, however, they were unable to control; in consequence the Normans occu-

pied the south, feudalism flourished toward the north and the free cities developed in wealth and political independence. Some attention should be paid to the growth of the cities as due in part to their geographical position and their trade, in part to their relations with the Empire. The most serious opposition to the Emperor came from the Pope, who held lands in central Italy and ruled the Western Church.

BOOKS OF REFERENCE.—Davis: England under the Norman and Angevin Kings. Methuen, London.

Stubbs: The Early Plantagenets. Longmans and Co., London.

Stubbs: Historical Introductions to the Rolls Series, 216. Longmans and Co., London.

Perry: Louis IX. Heroes of the Nations. G. P. Putnam's Sons, New York.

Tout: The Empire and the Papacy. Rivingtons, London.

Butler: The Lombard Communes. T. Fisher Unwin, London.

The Church.

The Church with its elaborate organization penetrated in and through the Empire and these growing nation-states. It had its *lands*, which strong kings, like William the Conqueror and Henry I., tried to control by reserving the power to appoint to office in the Church. Under Gregory VII., the Church resisted the kings; the Investiture Struggle was the result; its character can best be seen in the career of Anselm. The Church had its *courts*, which Henry II. sought to reduce before the royal system of justice; he was opposed by Thomas à Becket. It possessed strongholds everywhere in the *monasteries*, the inmates of which took charge of education, copied manuscripts, tilled the soil. Their character and influence can be shown most clearly from the life of Bernard of Clairvaux. To meet the needs of the people in the new towns, the Church supported the movement of the *friars*, inaugurated by Francis of Assisi and Dominic. It sent these "poor preachers" everywhere, but especially into the *Universities*, which, largely under its influence, had risen in Paris, Oxford, and other centres during the twelfth century. At first great crowds of students had gathered merely to hear famous teachers, but they soon followed settled courses, such as medicine at Salerno, law at Bologna, and established common regulations and customs. The Church, too, commanded other forces particularly that of religious enthusiasm, as expressed in the Crusades. The Crusades were to win the Holy Places from the unbelievers. The unbelievers in the East were followers of Mohammed, an Arab, who had preached belief in one God, and in himself, as God's prophet, and had inspired his people to a career of conquest in Syria, Africa, and Spain. The Crusaders held Jerusalem only for a time, but the movement promoted trade, brought in Eastern manners and ideas, and broadened the outlook of Western men. With the command of these forces the Church, under leaders such as Gregory VII. and Innocent III., asserted and finally estab-

lished its supremacy over the Holy Roman Empire. Its victory marked the climax in the political history of the Middle Ages.

BOOKS OF REFERENCE.—Church: Saint Anselm. The Macmillan Co., Toronto.

English History from Contemporary Writers: Saint Thomas of Canterbury. G. P. Putnam's Sons, New York.

Morison: Saint Bernard. The Macmillan Co., Toronto.

Gasquet: English Monastic Life. Methuen, London.

The Chronicle of Jocelin of Brakelond. The King's Classics, Chatto & Windus, London.

The Little Flowers of Saint Francis; The Legend of Saint Francis, by the Three Companions; The Temple Classics. Dent & Co., London.

Rashdall: Universities of Europe in the Middle Ages. The Oxford Press, Toronto.

English History from Contemporary Writers: The Crusade of Richard I.

Margoliouth: Mohammed. Heroes of the Nations. G. P. Putnam's Sons, New York.

Mediaeval Life.

While the above may be taken as the most important topics for the period, it should be noted again that they can be grasped only by a study of individuals. Biography possesses a real interest for young students. Teachers are advised to present by means of charts, photographs, and slides the main features of mediaeval life. They can find illustrations everywhere of mediaeval castles, churches, and towns and can readily trace in outline from these the development of architecture. It is essential that young pupils should get the atmosphere of the period, that they should be stimulated to put themselves in the position of the characters to be studied, and should begin to exercise historical imagination.

II. MODERN HISTORY.

Modern History is more complex than Mediaeval History. During its course there have developed a number of great nations each with its own type of life, each pursuing its own ideals. In the transition to modern times we find that some mediaeval institutions and ideas have almost wholly disappeared. We have no longer feudalism or crusades; the unity of the mediaeval Church has been broken by the Protestant revolt; the rights of birth and rank which seemed so natural to the mediaeval mind have been assailed in the struggles of such revolutions as that in France. The result is a changed world, and it is the chief function of the teacher of the history of this period to explain how the changes have come about. Only the great events and the great leaders can be followed; it is well to lay chief emphasis upon the history of England, which is closely related to nearly all the great continental movements.

The Growth of National Spirit.

This is seen as early as in the Hundred Years' War; France would not accept a foreign king. The teacher can use effectively the lives of Edward the Black Prince, Henry V., and Joan of Arc. To this day France treasures the memory of Joan as one of the first to appeal effectively to French nationality.

This national movement matures only slowly into the modern system of great states sharply divided from each other with strong centralized governments. The impelling force in these changes is summed up in the term—

The Renaissance.

It is most important to get a clear meaning of this term. It indicates more than anything else a state of mind which leads men to think for themselves. This state of mind came to the age as it comes now to the maturing individual and causes him to criticize, to explore, to break away from the traditions of the immediate past. It has many aspects:

(1) *The Revival of Classical Learning*: This revival finds its chief home naturally in Italy, where Florence becomes the "Mediaeval Athens." The figure of Dante, mediaeval in his religious thought, but half modern in his feeling for nature and his use of Italian, the tongue of the common people, stands at the beginning of the period. Petrarch, his younger contemporary, is modern in outlook. These two men ought to be made real. Both love ancient learning, but they are different types. Only a few Renaissance leaders should be considered: Lorenzo de Medici, Savonarola as opposing him, Pope Leo X., and Erasmus.

(2) *The Fine Arts in the Renaissance*: This is a subject so large that it may well become confusing. At most only a few great names should be discussed—Giotto at the beginning; then much later Leonardo da Vinci, Michael Angelo, Raphael, and Titian. Photographs of the great works of art are now cheap, and by spending a small sum each year an excellent collection of reproductions could be made. Framed and hung on the walls of the school rooms they would produce an excellent effect in educating the eye and the taste of pupils.

(3) *The Revolt from the Authority of the Church*: This is in its beginnings a German movement, springing largely from the growth of the national spirit. It will be best understood by seeing vividly one man, Luther. To see him the pupils must see those opposed to him,—Pope Leo X., the Emperor Charles V., Erasmus, even the English Henry VIII.

(4) *The Spirit of Discovery*: The story of the discovery of America can best be told in connection with Canadian History, but the whole subject of discovery should be understood as a phase of Renaissance thought—Marco Polo's journeys, the attempt to reach India by going round Africa, and Asia by crossing the Atlantic.

These topics especially interest students in the New World; maps should be freely used.

(5) *A New Independence in Political Thought*: This is probably the most far reaching and permanent result of the Renaissance. In England the change proceeds with striking regularity. Henry VII. and Henry VIII. are practically despots. Parliament does their bidding. But the new spirit shows itself under Elizabeth in delight in adventure (Drake, Hawkins), and in literary and scientific activity (Shakespeare, Bacon). Finally, when a Stuart and half foreign King succeeds, the nation asserts its liberties. Then we have the succession of leaders, Eliot, Hampden, Pym, Oliver Cromwell, who attack vehemently religious and political despotism. At the same time a similar struggle goes on on the Continent. The Church, wounded deeply by the assault of Luther, rallies her forces. Ignatius Loyola organizes the Society of Jesus; the Council of Trent is held, largely under Jesuit leadership. The Church is soon strong enough to carry on aggressive war in regions where she had at first lost heavily. Charles V. and Philip II. seek to destroy Protestantism in the Netherlands. The characters of both should be clearly understood, and over against Philip should be put the figure of William of Orange (the Silent) the leader of Dutch Protestantism. The course of the decline of Spain should be explained. The conflict widens and deepens. The Church aims to recover lost ground in Germany, and the Thirty Years' War breaks out. To follow the details of the War in a school class would be useless. Let only the issue be understood. Catholic Austria aims to dominate Germany, and not merely Protestant Germany but Catholic France joins in the struggle to prevent it.

The Age of Louis XIV.

The Thirty Years' War seemed to show that no single state, no single type of religious thought could be dominant in Europe and that attempts to effect unity by coercion would fail. But it was left for France to make a further supreme effort for domination. Here it is important to show what ambitions to sway Europe. France matured over against a Germany desolated and nearly ruined by the Thirty Years' War. To follow the details of the wars of Louis XIV. would be a waste of time with a school class; but his personality, his court, his ambitions can be made clear. The futility of his aim to master Europe is seen in—

The Rise of the new nations, Prussia and Russia.

The pomp-loving Frederick I., the first king of Prussia, his eccentric son Frederick William I., and his brilliant grandson Frederick II., (the Great) lend themselves to interesting treatment and abundant material will be found in Carlyle's "Frederick the Great." An equally interesting figure is Peter the Great of Russia, with his efforts to bring a hitherto Oriental state into touch with Western Europe.

The Expansion of England.

This phrase best sums up the final result of the world-wide struggle of England with Spain, with Holland, and with France. Its climax is in the Seven Years' War. Again, to follow such a struggle in detail would be vain; but the pupil can be made to see clearly Frederick the Great, Pitt, Wolfe and Montcalm, Clive, and George III., determined to be master and to end the war. England's triumph was short lived, but her disasters during the American Revolution should be passed over lightly for they are studied more fully in English History. The great crisis of European development soon came.

The French Revolution.

This era is a life's study in itself. The most a teacher can hope to do is to make vivid some of the leading figures: Turgot, his plans for reform and his failure; Necker, with his weak policy; Mirabeau, Robespierre, Danton as leaders. The Fall of the Bastille, the September massacres, the Terror and much else lend themselves to vivid treatment, but in each case the reasons for the event as well as the dramatic happening should be made clear. Let the teacher ask himself if he knows why the first republic was proclaimed in France, why the Terror seemed necessary, why Robespierre fell, why the Directory was established and why in the end there was established a military dictatorship under

Napoleon: Only a few chief things about Napoleon can be taught: the greatness of his genius, both as soldier and civilian, his ambition, his resolution to dominate Europe, the causes of his failure.

With Napoleon's fall we have Europe once again working out the fuller results of modern as distinguished from mediæval thought. The principles so extravagantly asserted in the France of the Revolution are still potent. National feeling becomes a passion and shows itself in remarkable movements for—

Unification: This movement is seen in Germany; in Italy; in the United States, by the overthrow of secession ideas in the Great Civil War; in the British Empire by the Federation first of Canada, then of Australia and the present plan for closer imperial unity.

Such great topics can only be touched upon, and the teaching will be effective only so far as the teacher himself thinks clearly and grasps the real meaning of the movements. Throughout the course attention should be fixed merely on the chief figures and the salient movements.

BOOKS OF REFERENCE.—Robinson: Introduction to the History of Western Europe, Ginn & Co., Boston; The Copp, Clark Co., Toronto; in one volume at \$1.60, or in two at \$1.10 each. At present this is probably the best High School text in Modern and Mediæval history. To this work, Robinson's Readings in European History is designed as a supplement; in two volumes at \$1.50 each, or in an abridged form for High School use, also at \$1.50.

Adams: Mediaeval and Modern History, Appleton & Co.
Myers: Mediaeval and Modern History. Ginn & Co., Boston.
The Copp, Clark Co., Toronto.

Each of the three text-books preceding contains a Bibliography. A full discussion of topics and books will also be found in A History Syllabus for Secondary Schools, prepared by D. C. Heath & Co., Boston. The Cambridge Modern History, to be completed in twelve volumes should be in the school library as a work of reference.

Robinson and Beard: The Development of Modern Europe,
Ginn & Co., Boston. Two volumes, \$1.50 each.

This very readable work begins with France under Louis XIV., and brings the History down to the Russo-Japanese War.

EDUCATION DEPARTMENT, TORONTO,
August, 1908.



*TO THE BOARDS OF TRUSTEES, INSPECTORS,
AND TEACHERS.*

APPROVED SCHOOLS.

Regulation 45, of 1904, rescinded last October, provided for a system of Approved Schools as follows :

APPROVED HIGH, PUBLIC, AND SEPARATE SCHOOLS.

45.—(1) At his official visits, the High, Public, or Separate School Inspector shall satisfy himself as to the character and extent of the provision in the schools under his charge for carrying out all the regulations affecting the preparation of candidates for non-professional certificates; and, without his approval of the School, no candidate therefrom shall be admitted to the examination for such certificates without examination in the subjects of Part I. for a District or a Junior Non-professional certificate, as provided for in Regulation 49 (1).

(2) At each inspection, the Principal shall submit for the approval of the Inspector the work of the candidates in Book-keeping and Business Papers and in Art, and their note-books in Science.

The subjects of Part I. referred to in (1) above were: Reading, Book-keeping and Business Papers, Art, and Elementary Science of the Lower School course of the High Schools.

For many years the public had regarded the results of the official examinations as the test of the competency of the teacher as well as of the pupil. The consequences were inevitable. These examinations became the dominant influence in the schools. Not only was the main object of education—the formation of character—too often lost sight of, but the examination stress affected injuriously the methods of teaching and the content of the courses, and the preparation of many pupils for the duties of life was altogether inadequate. The above quoted Regulation was intended, it is well understood, to improve the situation in the High Schools, and, with the improvement of the situation in the Public Schools also in view, a similar change was made in the provisions for the High School Entrance examination. The Regulation did give the teacher more freedom and it did reduce the examination stress during the first two or three years of the pupils' course beyond the Fourth Form of the Public Schools. But, even in these respects, it was only a partial measure of

reform. Complaints have, indeed, increased of late that, in very many cases, the products of our Secondary Schools do not possess what have long been regarded as the essentials of a practical education. They are too often poor in Spelling, Penmanship, Reading, and Letter-writing; and in the elementary operations of Arithmetic they are lacking in speed and accuracy. These complaints are well founded. Even if the Departmental and University examinations were suitable for pupils intended for commercial and industrial pursuits, which they are not, the examination test in the foregoing subjects is quite inadequate. With so many examination centres, there could be no adequate test of a candidate's ability to read, and, in any event, it would be regarded by the public as unjustifiable to reject him; that is, to put him to an additional year's labour and expense because he was a poor reader. So, too, if his Spelling or his Penmanship were poor, or his Letter-writing lacked the proper form, or his Arithmetic answers were inaccurate in details. In Arithmetic, indeed, under our system, he might obtain high marks for the principles of the problems even if all his answers were inaccurate in other respects. Accordingly, as has already been announced in Circular 19, the Education Department proposes, as a step in the regeneration of the system, to conduct the examinations for entrance to the training schools for the sole purpose of testing the competency of candidates for teachers' certificates; and to extend the "Approved School" system to the subjects of Writing, Spelling, Arithmetic and Mensuration, English Grammar, and Geography. As a consequence, henceforth the examination stress will be removed from all the Lower School subjects, the special preparation of the intending teacher will be transferred to the training schools, and greater freedom will be given the Secondary School staff during the first two or three years of the pupil's course, when such freedom is most needed. A thorough academic course is now provided in the Normal Schools, and no candidate will be allowed to pass the final examinations without a competent knowledge of all the subjects he will have to teach in the Public Schools, including, of course, Geography, English Grammar, and Arithmetic and Mensuration. As far as practicable at present, the same provision has been made in the Faculties of Education, and the same provision will be made in the Model Schools of the future. It is also the policy of the Education Department to increase the importance of the teacher's personality, and, in this way, to allow the formation of character to become the main function of the schools. Moreover, subject to judicious Departmental control and direction, it is the aim of the Education Department to place upon the Trustees and the Teachers the responsibility for providing, according to local needs, the education for his life work which every pupil has the right to receive. As a result largely of the dominant examination influences, our school system has failed to take sufficient account of our economic condition. We have educated too many for clerical and professional pursuits, in which there is little room, and too few for industrial

pursuits, in which there is always room. The future of Ontario demands that this shall cease.

But the Approved School scheme of 1904 did not fully realize the expectations of its promoters. Diversities of standards and laxity of administration resulted from the inadequacy of its provisions. The appointment in 1906 of an Inspector of Continuation Classes, in addition to the Inspectors of High Schools, has removed the main defect in the machinery. The new scheme will, accordingly, be carried into effect by a small number of Inspectors, who will confer together from time to time, and who are controlled by and are directly responsible to the Minister of Education. In this connection, it may be noted that, in 1909, when the scheme goes into full operation, the Normal Schools will not re-open until the last week in September. Candidates from non-approved schools will, accordingly, have ample time to review the subjects for the September examination of the Normal Schools and the October examination of the Faculties of Education; and the postponement of the examinations from the close of the Lower School course until these dates, will relieve from immediate pressure the Lower School of non-approved schools. In explanation it may be added that, beginning in 1909, the members of the staffs of the Normal Schools will hold Institutes of Instruction for Public School teachers during the month of September in the counties and districts of the Province.

From the Regulation of last October, which is quoted below, it will be seen that, while the Minister accepts the Principal's certificate as having been honestly given, every reasonable precaution has been taken to protect the interests of the training schools and of general education. It is, of course, understood that to remain upon the Approved list a school must maintain the excellence of its standard from year to year.

APPROVED HIGH SCHOOLS AND CONTINUATION CLASSES.

7. An approved High School or Continuation Class shall be one which fulfils the following conditions:

(1) The Departmental Inspector concerned shall certify as follows to the Minister of Education and to the Dean of each Faculty of Education and the Principal of each Normal School:

(a) That the provision for teaching the Lower School subjects enumerated in Regulation 6 is adequate and satisfactory. For the purposes of this certificate, Continuation Classes shall be under the same Regulations as to equipment and the programme and time-table of studies as are the High Schools. (See Regulations 34 and 40 (1) of 1904, and Regulation 40 (2) as amended in Circular 19 of 1907.)

(b) That the pupils' work in the courses prescribed in Regulation 6 is satisfactory. For the purposes of this certificate, the Inspector concerned shall examine the classes as he may deem it expedient, and the pupils' work since last inspection, in Book-keeping and Business Papers, and Art, and their note-books in Science, which work and note-books

the Principal concerned will preserve from inspection to inspection, as the Inspector concerned may direct.

(2) The preparation of the pupils, as evidenced by their work throughout the session, shall have been satisfactory to the Dean of the Faculty of Education and the Principal of the Normal School. In the case of schools in which the preparation has not been satisfactory, the Dean or the Principal shall report the facts to the Minister of Education and to the Inspector concerned.

The subjects of Regulation 6, referred to in (a) above, are the following of the Lower School course of the High Schools :

Reading, Writing, Spelling, Book-keeping and Business Transactions, Art, Biology, Geography, English Grammar, and Arithmetic and Mensuration.

Notice is also hereby given that, in the Faculties of Education, the certificate for the foregoing subjects or the examination therein in October will be required only in the case of candidates for a Public School Teacher's Certificate, and that no additional fee will be charged for this examination in the case of either the Faculty of Education or the Normal Schools.

When at his regular visit the Inspector finds the school equipment adequate, the staff competent, the organization acceptable, the time-table suitable, and the pupils' work satisfactory, he is justified in assuming that, given the teacher's honesty and zeal, the final preparation of the pupils will also prove to be satisfactory. Be it noted, also, that, at the discretion of the Inspector, a school may be paid a second visit during the year. With special ability on the part of a pupil or a teacher or of both, schools which, from the point of view of equipment and organization, fall below the prescribed standard, may, it is true, also produce satisfactory results. But, at his visit, the Inspector is not in a position to pronounce upon the situation; and, for testing such results, an examination has necessarily been provided.

For the Session of 1908 to 1909 of the Normal Schools and Faculties of Education, a modification of the September examinations is necessary, as most of the pupils who will enter in 1908 are now in the Middle or the Upper School, having taken their Lower School subjects under Regulation 45 of 1904, which is quoted above and which was in force till last October. Accordingly, in the case of pupils from schools which the Inspectors have not approved for 1907 to 1908, the entrance examinations of the Normal Schools next September and of the Faculties of Education at Toronto and Queen's next October will be confined to Geography, English Grammar, and Arithmetic and Mensuration, as defined in the Lower School course of the High Schools; provided, however, the candidates submit to the Principal, or the Dean, as the case may be, the certificate required under Regulation 45 of 1904. Moreover, for the Session of 1908 to 1909, the consideration which, since 1904, has been extended to candidates from schools outside of the Provincial system will be continued. Such candi-

dates must present certificates from their teachers, certifying in detail that they have completed the Lower School courses enumerated under Regulation 45 on page 1 of this circular; and, like the candidates from High Schools or Continuation Classes which have not been approved, they must also pass the prescribed examinations in Geography, English Grammar, and Arithmetic and Mensuration.

Notice is hereby given that, at the September and October examinations of 1909 and thereafter, all candidates from non-approved schools will be expected to show a practical knowledge of Biology and of the use of both pencil and brush in Art work. Having regard to the preceding requirements, teachers of High Schools and Continuation Classes should note that suitable Summer Schools will be provided next July at the University of Toronto, in Art and Science, as well as in other subjects of the High School programme. They should also note that under Regulation 39 (8) as amended on page 9 of Circular 19, any subject not satisfactorily completed by July in the Lower School may be provided for at any time in the pupil's subsequent course in the High Schools or Continuation Classes.

Moreover, as the number of the obligatory subjects at the July examination for entrance to the Normal Schools has been reduced from ten to seven, a higher standard of answers than heretofore will be expected from the candidates. In the Normal Schools, less attention will be paid to the purely academic side of these subjects than to that of the other, and, in most cases, more important subjects of the Public School course. Hereafter, also, one of the Latin papers will consist of Authors and Sight Work, with suitable questions on the Authors, and the other paper of Latin Composition and Grammar.

The Minister of Education regards the present extension of the Approved School scheme as a most important step in advance. He confidently counts upon the sympathetic co-operation of all who know what education really is, and he hopes that the success of the scheme will justify him in extending it still further in both the High Schools and the Public Schools. The personality of the teacher, he believes, should become a far more important factor in the adaptation of our schools to the necessities of the Province. The examination holds an important place in any well-ordered system of education; but a system which depends mainly upon the stimulus of examinations conducted by outsiders and dwarfs the teacher's sense of responsibility cannot build up the character of our youth or prepare them for the diverse duties of life.

EDUCATION DEPARTMENT,

January, 1908.

Elementary
Agriculture and Horticulture
and
School Gardens
in
Village and Rural Schools

Explanatory and Descriptive Circular.



TORONTO:

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TORONTO.

Elementary Agriculture and Horticulture.

(From the amended Regulations of 1907.)

1. Any Rural School Board, or any School Board in a village, that provides and maintains a School Garden with the accommodations and equipment prescribed below shall be entitled to an initial grant not exceeding one hundred dollars, and a subsequent annual grant of twenty dollars out of any grant made for Elementary Agriculture and Horticulture by the Legislature, to be expended in caring for such School Gardens and for keeping the school grounds in proper condition.

2.—(1) The area of the School Garden shall be sufficient for the number of plots required, and shall be at least one-quarter of an acre in addition to the requirements as to area of the regular school grounds in each case prescribed by the Education Department. The School Garden shall be adjacent or convenient to the regular school grounds.

(2) The School Board shall provide the necessary tools, implements, seeds, and other requisites, and also a garden shed, or a suitable apartment, for the storage thereof and for use as a working laboratory.

3. One legally qualified teacher in each school who holds a certificate from the Macdonald School at Guelph or any other institution approved by the Minister of Education, that he is competent to give instruction in Elementary Agriculture and Horticulture, and who shall thereafter give instruction, approved by the Inspector, in said subject at any Rural or Village Public School having a School Garden attached, in accordance with the Regulations of the Education Department from time to time, shall be entitled to receive an allowance at the rate of thirty dollars a year from any sum voted by the Legislature for these subjects.

4.—(1) Should the sum voted by the Legislature not be sufficient to pay in full the grants on the foregoing bases, the Education Department will make a *pro rata* distribution of the sum voted.

Teachers intending to qualify as teachers of Elementary Agriculture and Horticulture under the above regulations should address the Ontario Agricultural College, Guelph, for particulars. Teachers who have already taken Nature Study courses at Guelph will have their work accepted in part.

School Boards desiring to start a forestry plot in their School Gardens may obtain a free supply of seedling trees on application to the Forestry Department, Ontario Agricultural College, Guelph. These seedlings include Norway Spruce, White Pine, Scotch Pine, White Cedar, White Ash, Black Locust, Manitoba Maple, Catalpa and Tulip Tree, or White Wood. In addition to these the seeds of the more important trees of the locality should also be planted, including, if practicable, Oak, Pine, Maple, Birch, Hickory, Butternut, Walnut, Chestnut, Basswood, etc.

SCHOOL GARDENS.

I. GENERAL AIMS.

To stimulate interest in rural life;

To provide healthful exercise for body and mind, and to afford to the pupil an opportunity to direct his activities along useful lines;

To develop at an early age habits of industry, respect for labor, and a love for productive and constructive work;

To impart useful information in agricultural subjects;

To give facility in the handling of tools and in the practice of garden craft;

To promote the desire to improve home surroundings and to train boys and girls to do such work with efficiency;

To promote the qualities that make for good citizenship, such as the responsibility of ownership, respect for public property, consideration for the rights of others and the principle of co-operation in seeking the common good;

To encourage careful observation of nature; thus enabling the pupil to understand his environment and to appreciate more fully the beautiful in nature;

To promote a spirit of independent investigation in other branches of study;

To bring the life and interests of the school more closely into touch with the home life of the pupils.

II. ORGANIZATION.

Location of the Garden.—So as to be easily accessible, the garden should be convenient to the school room. If possible, it should be situated in a part of the grounds that can be seen from the windows of the Principal's class-room. The safety of the garden as well as the convenience of the pupils should be kept in mind. Accordingly, the garden should not in any way interfere with the usual outdoor games. Accordingly, also, either a strong hedge or a woven-wire fence should divide the garden from the play-ground. If the garden has a southern exposure so much the better; if not, protection from storms and cold north winds may be secured by planting along the north and the west sides a wind-break of evergreens. Such planting should not be allowed to shut out a fine view from the school building; but, in some cases, it might be used to advantage to shut out unsightly or objectionable features outside the grounds. When practicable, the garden should be placed where it can be seen from the street or highway. It should be in harmony with the natural features of the grounds; or, in other words, it should occupy that place in the grounds where it will "look best."

Size of the Garden.—No school is too small to have a garden of some kind. The area of the garden does not determine its success. The best garden is the one the teachers and pupils have been most deeply interested in making.

The area of the garden will depend largely upon the area of the available grounds and upon the number of pupils taking part in the work. In a

large graded school where the size of the garden is limited it may be arranged that gardening be taken up in certain grades only. The area will also be determined in part by the nature of the work carried on. Individual plots of flowers or vegetables require least space and are the all important feature. Larger class plots may be added for the growing of vegetables or grains that cannot conveniently be cultivated in small plots; and, if the garden is large enough, experimental plots in connection with farm crops, as well as forestry and fruit plantations, may be included.

A school ground one and one-half acres in extent might be divided up as follows: Boys' playground, $\frac{1}{2}$ ac.; girls' playground, $\frac{3}{8}$ ac.; front lawn, approaches, etc., $\frac{1}{8}$ ac., pupils' plots in vegetables and flowers, $\frac{1}{4}$ ac.; field experiments, fruit and forestry plantations, $\frac{1}{4}$ ac.

Size of Plots and Paths.—The size of school garden plots will depend very largely upon the character of the work carried on and the age or ability of the pupils. For pupils in primary classes plots 3 ft. \times 5 ft. are very satisfactory; for intermediate classes 3 ft. \times 10 ft.; and for seniors 3 ft. \times 20 ft. (or 6 ft. \times 10 ft.). It will be noticed that the above plots have one dimension in common, viz., 3 ft. wide—this provision becomes more important as the plots are increased in number. If they are of the above size, each pupil should manage two, one for flowers and the other for vegetables; and the flower section of the garden may be separate from the vegetable section. For pupils in the primary class one plot may be considered sufficient, and in this case, both flowers and vegetables might be grown side by side. Class plots should not be smaller than 20 ft. \times 20 ft., and plots for field experiments with potatoes, roots, grains, fodder crops, etc., might be 1 rod square or 1 rod \times 2 rods, or 10 ft. 5 in. \times 20 ft. 10 in. (1-200 of an acre). A walk at least 4 ft. wide should run all around the garden. Paths 3 ft. wide should run between class or experimental plots and between rows of individual plots. Narrow paths (1½ ft. wide) should separate individual plots in the same row. When once the paths and plots have been made and the corner stakes driven, they should not again be disarranged. The plots should be spaded in the fall, no horses being needed in cultivating the garden after the first year.

Garden Plans.—When the extent of the space available for the garden has been ascertained it is advisable to prepare a plan of the garden on paper which will show the exact size and location of the plots required. Such plans should be made with deliberation early in the spring before planting operations begin, and the pupils should be allowed to co-operate in the work. In addition to this general garden plan each pupil should make a plan of his or her own plot or plots, showing where the different varieties of plants chosen are to be grown. This exercise may form a suitable introduction to map drawing. Each pupil should have a garden note-book in which to record work done and observations made day by day. Such garden diary should contain a plan of the pupil's plots drawn to a scale and showing the arrangement of the plants in each plot.

Laying Out the Garden.—The chief requisites for laying out the garden are a tape-line, a long garden line, a supply of small stakes 1 inch square and 1 ft. long, and a hatchet or mallet to drive them down. The stakes for the large plots might be larger than these, and might be made by the boys at home or in the school work-room, if the school is fortunate

enough to have such a room. The outside corners or main boundaries of the garden should first be located and marked with strong stakes. The outside walks should then be staked off, space for a border of flowering perennials measured off, and then the individual plots, class and experimental plots, etc., in the order mentioned, the stakes being driven at the points which are to be the corners of the plots.

Preparing the Plots.—The planning and staking out of the garden will, of course, be done by the teacher and the pupils. The making of the paths and the preparation of plots in a large garden, however, will usually necessitate the services of a competent man. Most of the boys and many of the larger girls will prepare their own plots with ease and despatch when they have once been shown how to do the work. The smaller boys and girls will need some assistance. In an ordinary garden the older boys may help the girls, and the smaller boys and hired help will not be needed. The plots should be made the exact size indicated by the four corner stakes. Level cultivation should be followed if the soil is very sandy. Otherwise it is desirable to raise the plots by removing a couple of inches of soil from the paths and placing it evenly upon the plots, which should be made of uniform height, raked level and all edges carefully trimmed with the rake and garden lines. If some well rotted manure is spaded into the plot before raking down, so much the better. Refuse in the form of hard lumps of earth, etc., should be raked out of the paths and removed in a wheelbarrow or used to fill up holes in the garden. In this as in all parts of the work the teacher should insist on care and accuracy. Nothing but the best efforts of the pupils should be accepted in the making, planting, and care of garden plots.

III. DETAILS OF WORK.

Notes on Planting.—Teachers with limited experience in gardening will find some difficulty at first in making a selection from seed catalogues for the school garden. To allow the pupils as much freedom as possible in choosing their own plants and at the same time safeguard them from possible failure and consequent disappointment may become one of the most difficult school garden problems. A few general rules and suggestions will prove helpful.* Beginners should choose the more familiar plants, especially those that do not require more than ordinary treatment. Young pupils should plant seeds that are easily handled, quick to germinate and sure to grow under ordinary conditions. These seeds the teacher should select. Pupils should not attempt to grow too many varieties in one season. Primary classes might try two varieties of flowers and two of vegetables, intermediate classes three or four varieties of each, and seniors up to six of each. A pupil might be allowed to cultivate only one variety if he so wished, but the tendency is to err in the other direction. After the first year the pupils should be encouraged to try at least one new variety of flower or vegetable each year and thereby gain a wide and practical knowledge of varieties. They might, however, be allowed to cultivate the same varieties year after year if they so desired. The older pupils should

*A circular containing lists of tools and seeds for school gardens may be had on application to the Education Department.

choose part of their varieties from the list of plants that require to be started early in hot-beds or window-boxes, so that they may become familiar with the work of transplanting.

Plants that grow very tall (corn, sunflowers, etc.) should not be put in small individual plots, as they tend to interfere with the light supply to low-growing plants near them. Vines also (squash, cucumbers, etc.) should be grown only in large plots, as they obstruct the paths and interfere with plants in neighboring plots. Different varieties of corn should not be planted side by side, as the wind will carry the pollen of one variety to the pistils of the other if planted near together, and mixed varieties will result. When planting in rows, the rows should run north and south, as the plants will get most sunlight evenly distributed when so planted. If the rows are short and must run east and west, the tall-growing plants should be planted at the north side of the plot.

Color schemes in planting should be encouraged amongst older and more experienced pupils. Flower designs also afford scope for the imagination and tend to encourage originality. Only low-growing plants of fairly compact habit should be chosen for flower designs or border work. Mass effects which result from growing only one variety of flower in a plot, add to the attractiveness of the garden. Some flowers, like the poppy, verbena, portulacca, or petunia, make a fine display when so grown. Every school garden should have a visitors' plot of fine flowers from which interested visitors would feel at liberty to "take one." The picking of flowers or vegetables from plots by persons other than the owners of those plots should be strictly prohibited.

Flowering perennials should be planted in borders along the front and sides of the garden, along walks, fences, etc., and late-flowering annuals may be transplanted into the perennial borders to provide bloom late in the season. Perennials, started from seed in August, protected throughout the winter by a light covering of leaves or straw, and transplanted to permanent positions in spring, will bloom that same year. Ornamental shrubs should be planted along the sides and in the corners of the grounds—never in the garden nor out in the open grounds where they would interfere with the playing of outdoor games. The same may be said of shade trees. Each pupil should know what he is to plant before planting day comes, and should submit a plan for his plot for the teacher's approval or for rearrangement. To avoid confusion in the garden, not more than a dozen pupils should be engaged in planting at one time. If the flower or vegetable seeds are to be put in in rows, the rows should be kept in perfect line across the garden, and if possible be a uniform distance apart. A garden line and a rule are needed for this purpose. A twelve-inch board about 6 ft. long will be found very useful in planting. It can be used as a straight-edge in making the drill for the seed, is convenient to stand on when sowing the seed, and, lastly, for firming the soil over the seeds when planted. It is very convenient to have the rake-handles marked off in feet and inches.

When the plots are ready and the drills made for the seed the teacher should place in the left hand of each pupil just enough seed to plant the row, giving at the same time a word of instruction as to how thick the seeds should be planted and how much earth should be put over them. Care should be exercised to prevent needless waste of seed. The seed should be taken between the thumb and index finger of the right hand

and spread thinly and evenly along. The finer and weaker the seeds the less covering they should have. If the soil is very dry it should be thoroughly watered the day before the planting is to be done. This is a much better practice than to sow seeds, and especially fine seeds, in a dry seed bed and then to water with the sprinkling can. The latter practice invariably causes a hard crust to form over the top, through which the young plants come up with difficulty, if at all; free access of air is prevented and the moisture necessary for growth is allowed to escape.

From one to three weeks after the seeds have been planted and when danger of frost is past, the transplanting from hot-beds or cold-frames may be done. If possible it should be done on a moist or cloudy day, otherwise it will be necessary to shade the plants with papers or shingles for a few days and to water them frequently. Water from a well should be allowed to stand in a tank or barrel for a few hours before being used on garden plants. The holes for the plants may be made with a transplanting trowel, or, if the plants are very small, with a sharpened stick. Before the plants are lifted they should be thoroughly watered to prevent the breaking of the delicate rootlets. They should be placed in the holes, using water if the soil is very dry, and the earth then firmly pressed around their roots. When set, they should be slightly deeper in the soil than before transplanting.

Care of the Garden after Planting.—When once the planting is done, two half-hours' work per week is sufficient to keep the garden in good condition. The prevention rather than the eradication of weeds should be aimed at. If cultivation is carried on regularly and systematically from the first, the weeds will all be destroyed in the germinating stage and will give no further trouble. Mere weed killing is not the greatest value to be gained by cultivation, however; for if the soil is thoroughly stirred around the roots of the plants a couple of times every week, the necessary supply of air in the soil for rapid growth will be ensured. In many cases the top soil forms into a hard crust, especially after a heavy rainfall, and in this hard soil are many little channels through which moisture escapes into the air by evaporation. This soil should be finely pulverized to a depth of two or three inches, thus forming an earth mulch which prevents the rapid escape of moisture from the soil. If mulching and cultivation are thus carefully attended to, the difficult problems connected with the weeding and watering of a garden are incidentally solved. The garden rake should supersede the sprinkling can under ordinary circumstances. Of course it is necessary to water plants after transplanting, and there are certain soils that need watering occasionally during a dry season, but such cases are not common. If artificial watering is needed it should be done in the evening and a plentiful supply should be given. Merely wetting the surface soil encourages shallow rooting and is injurious to the plants.

Care should be taken not to have the plants much crowded in the rows or the rows very close together. The ideal condition would be to have the plants so far apart that they would completely cover the ground without crowding when full grown. When the plants have reached this stage of development, if cultivation has been thoroughly and carefully done there will be no further danger from weeds, as weeds will not grow in such deep shade.

The detection and the treatment of garden pests is a matter of increasing importance to all gardeners, but it is especially important in

connection with school gardening. Nature study with insects can be carried on to greatest advantage in a school garden. An insect at work in its own natural environment is immensely more interesting to the child and is of far greater importance from the Nature study point of view than an insect impaled upon a pin in a glass-covered box. The life history of some of the common garden insects can be studied, their feeding habits noted, and suitable insecticides used on the injurious ones. Fungus diseases of plants such as the potato blight and the tomato rot should also be studied and the pupils made familiar with the nature and use of such fungicides as Bordeaux mixture.

The blooming period of flowers can be prolonged by keeping the flowers closely picked. Seed should never be allowed to ripen unless wanted for subsequent planting, in which case only that from the finest blooms should be preserved. Such selection of seed can best be done by tying strings or labels around the flower stems before the bloom is gone.

Constant care should be exercised in keeping the garden tools in their allotted places. They should never be left out in the garden. All garden refuse, such as weeds, dead plants, etc., should be kept out of the paths and placed in a refuse or compost heap in the least conspicuous place in the garden. When decomposed it produces a valuable humus for potting plants or for use in flower borders. Early in October the plots should all be cleaned off, spaded, and left in readiness for planting operations the following spring.

The produce from the individual plots should become the property of the respective owners and should be removed by them. The produce from each class plot should be divided amongst the members of the class interested, and that from general experimental plots might be sold by the pupils, the salesman in each case to get a commission of say 10 per cent. on his sales, and the balance to be placed in a general garden fund and used to defray expenses or to purchase tools, pictures, apparatus, etc.

The pupils should be encouraged to give liberally of their flowers to churches and charitable institutions, and every sick-room in the community should be brightened continually by flower bouquets from the school garden. The surplus of plants or the seeds of good varieties should be distributed amongst the people of the section.

Care During Summer Holidays.—Much depends upon how the work has been done before the holidays begin. If all of the above suggestions regarding cultivation and care are faithfully carried out, when the summer holidays arrive the weeds will have been pretty well conquered for the season and the garden plants well advanced. If, however, the best results are to be obtained some attention is necessary during the summer holidays and the pupils should be given to understand at the beginning of the season that they alone are responsible for the care of the plots which have been assigned them. It should be understood also that they will visit their plots once every week during the holidays, or, if absent, they will make arrangements with other pupils to do so. If the work has been conducted in such a way that the interest has been keen throughout the term, the pupils will cheerfully give their plots this necessary care. If the teacher is a resident in the section, he will be able to meet the pupils at the garden occasionally after school closes in June. In the case of large gardens it may be found necessary to arrange with one or two of

the older boys or with some suitable man to do extra work in the garden, the cost to be paid by the School Board from such funds as may be available for garden purposes. General care of the garden rather than care of individual plots should be provided for in this way.

Co-relation.—The extent to which school garden work may be correlated with the ordinary school studies depends largely on the resourcefulness of the teacher. He should take advantage of the garden and of the garden exercises in adding freshness and in giving a practical bearing to subjects which are intrinsically uninteresting to children. Garden work and garden observations afford interesting subject matter for exercises in drawing and composition—interesting because so closely associated with the pupils' own experiences and life interests. Many of our foremost authors and nature poets have idealized the plants of the garden as well as those of the wildwood, so that children's gardening experiences and their own first hand knowledge of plant and animal life, may serve to bring them into a fuller enjoyment of the literature of nature. Many practical problems in arithmetic are suggested, and even demanded, in connection with school gardening. The keeping of garden accounts, for example, may be made a valuable training in bookkeeping and in commercial arithmetic. Weights, measures, values and mensuration are all more or less involved in school gardening. For more advanced classes the study of botany with garden plants and of zoology with garden insects, etc., can be carried on to very great advantage.

Teachers' Training Courses
IN
Elementary
Agriculture and Horticulture
AND
Industrial Arts
AT THE
Ontario Agricultural College
Guelph

SESSION :—April 19th to June 29th, 1909.



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1909

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TEACHERS' TRAINING COURSES

Elementary Agriculture and Horticulture and
Industrial Arts.



Arrangements have been made by the Department of Education for the instruction of teachers in ELEMENTARY AGRICULTURE AND HORTICULTURE and ELEMENTARY INDUSTRIAL ARTS, at the Ontario Agricultural College, Guelph.

The courses are open to teachers-in-training at the Normal Schools who pass the April examinations for Second Class certificates and fulfil the other conditions prescribed by the Department of Education.

The course in Elementary Agriculture and Horticulture is intended primarily for rural school teachers; that in Elementary Industrial Arts for teachers of graded urban schools. Students are not permitted to take both courses or parts of each course.

The term will be for ten weeks, commencing Tuesday, April 20th, and closing Tuesday, June 29th. Students should arrange to reach Guelph on Monday, April 19th.

No fees are charged for the course. Students are, however, required to furnish their own working materials for art-work, plant collecting, etc., and to pay for laboratory breakages.

The Department of Education will pay the travelling expenses of the teachers-in-training to and from their homes; and board and lodging will also be provided free. Further information regarding arrangements for board will be given on application to the President Ontario Agricultural College, Guelph.

Applicants for the course are required to pledge themselves to three years' service in teaching in Ontario Schools (see form of application). Applications for admission are to be handed to the principal of the Normal School not later than March 15th, 1909.

FACULTY OF INSTRUCTION.

The instruction given will be under the supervision and direction of the heads of the College Departments.

ELEMENTARY AGRICULTURE AND HORTICULTURE.



CHARACTER OF THE COURSE.

The object of this course is to train teachers in the scientific principles and practices of modern farming, so that the country or village school may adequately sympathize with, and direct the life-interests of country boys and girls.

The instruction will be given in lecture room, laboratory, workshop, garden, and field. The theory and demonstration of the lecture and laboratory will illustrate the out-of-door practice; it will be elementary in character, the needs of pupils in the rural school being kept always in view. Most of the instruction will be of a practical nature and much of it will be given out-of-doors. There will be a relatively small amount of time given to book work.

The whole College equipment of garden and orchard, farm and experimental plots, stables, workshops, museums, campus, green-houses, laboratories, forest nurseries, experimental wood lot, and dairy and poultry farms will be at the service of students for observation.

The course is for teachers who have to deal with Public School pupils and not for students preparing to become experts in the Science of Agriculture. The subjects will be taken up from this view-point.

Special attention will be given to the subjects of School Gardening, Botany, Horticulture, Field Husbandry, Physics, and Entomology.

TIME TABLE.

The following weekly time-table shows the probable allotment of time for each subject :

—	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
9.00-10.30 ...	Physics.	Entomology.	Physics	Entomology	Bacteriology.
10.30-12.00 ...	Chemistry.	Botany	Field Husbandry.	Botany	Animal Husbandry.
1.30- 3.00 ...	Field Husbandry.	Fruit, Vegetable or Landscape Gardening	Forestry	Farm Carpentry or Visits to Industries	Experimental Botany, School Gardening Methods.
3.00- 4.30 ...	Dairy Husbandry or Poultry.	Floriculture	Field Work	do	do

CERTIFICATES.

A certificate in Elementary Agriculture and Horticulture will be granted to those students whose work, as represented by regular attendance, garden practice, individual experiments, laboratory work, collections, written records and final tests, shows satisfactory progress and ability to carry out this work in the schools.

Students whose work or conduct is unsatisfactory will be asked to retire.

COURSE OF STUDY.

FARM LIFE AND ALLIED INDUSTRIES.

Lectures will be given by Institute lecturers and others working for the improvement of conditions in the country—in school, home, and farm. Discussion will be held as to how the school and teacher can help towards an improvement. In this connection visits will be paid to country schools; students will also be made acquainted with the government publications and educational organizations. (About five lectures.)

Visits will be made also to local industries in Guelph to learn how urban activities are inter-related with those of the farm. (About four afternoons.)

SCHOOL GARDENING.

Brief sketch of the development of school gardening in Canada and abroad; its aims as a school study; laying out of a garden; individual plots; class plots; teacher's plots; experimental plots; forestry plots; borders, keeping of tools, home gardens; keeping of garden records; observation in gardens at Marden School and Macdonald School; school exhibits (4 lessons).

Each student will be provided with a garden for practice and observation. After the gardens are planted the work in them will be carried on without special provision on the time table.

BOTANY.

(20 lessons.)

1. *Economic plants*: Examination, description, and classification of common garden, field, and forest plants.

2. *Weeds*: Provincial Laws, Seed Control Act. Study and identification of the seeds of common weeds. Collection.

3. *Plant Diseases*: Study and identification of common fruit, vegetable and grain diseases; laws regarding Barberry, Black Knot, etc.; application of preventives and remedies. Collection.

4. *Experimental*: Students will be assigned simple experiments in plant physiology from the subjects listed below. These experiments they will demonstrate before the class:

(a) *The Seed*: Testing the vitality; determining the condition necessary for germination; how the seedling becomes established.

(b) *The Root*: How roots grow, their function; how they absorb food and water; proof of their using air and giving out carbon dioxide; quantity of water absorbed.

(c) *The Leaf*: The function of leaves, control and measure of transpiration; respiration; starch formation; behaviour in light and darkness.

(d) *The Stem and Buds*: Forms, structures and functions of stem and buds; influence of temperature, moisture, light on growth; how the sap circulates.

(e) *The Flower and Fruit*: The functions of the parts of flowers; causes controlling the opening and closing of flowers; pollination; formation of fruits; devices for protecting and disseminating seeds; cross fertilization; plant breeding in experimental plots.

HORTICULTURE.

(20 lessons.)

1. *Fruit-growing* (4 lessons): Development, importance, needs, and outlook for the fruit industry; Governmental interest and action regarding shipping, marking, cold-storage, fumigation of nursery stock; experimental stations; co-operation in shipping; adaptation of various fruits to school garden work; arrangement and planting of the same; nursery practice in the propagation of trees and plants; principles of orchard management; pruning; spraying; cultivation.

2. *Vegetable Gardening* (4 lessons): Choice of vegetables for school gardens; preparation of soils; testing and planting of seeds; general care and cultivation; preparation and use of hot-beds and cold-frames; use of tools and implements.

3. *Landscape Gardening* (4 lessons): The principles of landscape gardening in relation to the laying out and beautifying of school and home grounds, including a practical study of the trees, shrubs, and ornamental features on the College campus and neighbouring school and home grounds.

4. *Floriculture* (8 lessons): Propagation and care of house and window plants; preparation of potting soils; bulb culture; making and planting of flower beds, annual and perennial borders.

FIELD HUSBANDRY.

(20 lessons.)

Importance of field crops in the national economy; systems of farming; rotation of crops; fertility of soil; cultivation of the land; classes of farm crops; uses of farm crops; varieties of farm crops; selection of plants; selection of seeds; improvements of crops by means of selection and hybridisation; practical tests in connection with Experimental Union; study of work being done in experiments with farm crops in Canada and in the United States.

Examination of field crops on neighbouring farms; the work on the experimental plots; farm crops in the school garden; the agricultural museum; laboratory study of the root development of farm crops; types of seeds of grains, grasses, clovers, roots and fodder crops.

PHYSICS.

(20 lessons.)

Applications of physics in farming; nature of soils, soil moisture, heat and air; principles of tillage and systems of drainage and cultivation; measurements of fields with the chain; identification of samples of soils; principles of common farm machines; meteorological records.

ENTOMOLOGY.

(20 lessons.)

Losses through insects in agriculture and horticulture; Governmental interest; classification of insects and laboratory study of types; common beneficial and noxious insects; out-of-door study and collecting in field, garden, orchard and forest; insecticides; a collection of insects properly mounted and labelled is required. Work of the Entomological Society of Ontario and the organization of local clubs in connection with it.

ANIMAL HUSBANDRY.

(5 lessons.)

Development, importance, status of the industry in Ontario; histories and characteristics of principal breeds of live stock; types; stabling and care. Study of College stables and herds; exercises in judging with score cards.

DAIRY HUSBANDRY.

(5 lessons.)

Development, importance, needs, outlook, Governmental interest and action; markets and competition. Dairy breeds, care and stabling; individual cow-testing; care of milk and cream.

Observation of the process of Cheddar cheese making, curing, boxing, labelling, shipping.

Observation of the process of butter making, printing, shipping; milk-testing with lactometer and Babcock test; milk separation with hand separator.

POULTRY.

(5 lessons.)

Development and importance of poultry industry in Canada; markets and competition; Governmental interest and action. Common breeds; feeding, housing; incubation; individual testing by trap nest; preservation of eggs.

Observation of natural and artificial hatching of chicks; care of young in brooders, feeding, etc.

CHEMISTRY.

(10 lessons.)

Agricultural Chemistry: Plant growth and composition; soils; manures and fertilizers.

Chemistry of foods: The chemistry of the food principles, *i.e.*, Protein, fat, carbohydrates and mineral matter; the function of these in the body, and the general characteristics of the different classes of foods. Simple experiments, such as might be carried on in public schools.

BACTERIOLOGY.

(10 lessons.)

Lectures and demonstrations exemplifying the work of bacteria in soil, dairying, plant and animal diseases; Government regulations regarding tuberculin tests, killing of diseased cattle, stamping out of hog cholera, meat inspection, etc. An experiment on soil inoculation in the school garden.

FORESTRY.

(5 lessons.)

Development of forestry work in other countries; value of lumbering industry; Canada's conditions and needs; laws and regulations regarding re-forestation and forest preservation; the establishment, care and protection of wood lots.

Identification of our forest trees; planting seed-beds in school gardens; work in College nursery and in the experimental bush; collection of weeds, etc.

FARM CARPENTRY, ETC.

(12 lessons.)

Exercises in making articles needed in garden work, such as garden stakes and germination boxes. Instruction in the care of tools and the general repairing to be done about a school or home, such as cutting glass, puttying, painting, sharpening tools, inserting handles, mending gates and fences. Instruction in making working drawings of simple articles and the interpretation of such as are found in agricultural papers and farmers' bulletins illustrating farm buildings and utensils. Observation of approved and up-to-date methods of stabling, fencing, road-making, supplying water, etc.

REFERENCE LIBRARY.

The reference books listed below will be kept for students' use in Massey Library or on the laboratory book shelves. Government publications and the best agricultural papers will also be available. These books are specially selected and teachers may use the list as a guide in purchasing books for school libraries.

FARM LIFE AND SCHOOL GARDENING.

- Nature Study and Life*, Hodge. Ginn & Co., Boston, \$1.50.
The Outlook to Nature, Bailey. The Macmillan Co., Toronto,
 \$1.25.
Among Country Schools, Kern. Ginn & Co., Boston, \$1.00.

BOTANY.

- High School Botany*, Spotton. Gage & Co., Toronto, 60c.
The Farm Weeds of Canada, published by Dominion Government,
 free.
Experiments with Plants, Osterhout. The Macmillan Co., Toronto
 \$1.25.
Botany, an elementary text-book, Bailey. The Macmillan Co.,
 \$1.10.
Agricultural Botany, Percival. Henry Holt & Co., New York,
 \$1.75.

HORTICULTURE.

- Nursery Book*, Bailey. The Macmillan Co., \$1.00.
Principles of Fruit-growing, Bailey. The Macmillan Co., \$1.00.
Vegetable Gardening, Green. Webb Pub. Co., St. Paul, \$1.00.
Landscape Gardening, Waugh. Orange Judd Co., N.Y., 50c.
Flowers and How to Grow Them, Rexford. James Vick, Roches-
 ter, \$1.00.

FIELD HUSBANDRY.

- The Cereals in America*, Hunt. Orange Judd Co., N.Y., \$1.75.
Forage Crops, Voorhees. The Macmillan Co., \$1.50.
The Story of the Plants, Grant Allen. D. Appleton & Co., New York, 40c.
Agriculture, James. Morang & Co., Toronto, 30c.

PHYSICS.

- The Soil*, King. The Macmillan Co., 50c.
Engineering for Land Drainage, Elliott. \$1.50.
Surveying, Baker & Dickson. Crosby, Lockwood & Son, London, 50c.
Meteorology, Davis. Ginn & Co., \$2.50.

ENTOMOLOGY.

- Manual for the Study of Insects*. Comstock Pub. Co., Ithaca, N.Y., \$3.75.
Insects Injurious to Fruits, Saunders. Lippincott & Co., Philadelphia, \$2.00.
Insects Injurious to Vegetables, Chiltenden. Orange Judd Co., N. Y. \$1.50.
Insects Injurious to Staple Crops, Sanderson. Wiley & Sons, New York, \$1.50.
Outdoor Studies, Needham. American Book Co., New York, 40c.

ANIMAL HUSBANDRY.

- Types and Breeds of Farm Animals*, Plumb. Ginn & Co., \$2.00.
Principles of Breeding, Davenport. Ginn & Co., \$2.50.
Judging Live Stock, Craig. Published by the author, Des Moines, Iowa, \$1.25.

DAIRY HUSBANDRY.

- The Elements of Dairying*, Decker. Published by author, Columbus, Ohio, \$1.00.
Cheese-making, Decker. Published by author, Columbus, Ohio, \$1.50.
Testing Milk and Its Products, Farrington and Woll. Mendolla Book Co., Madison, Wisc., \$1.00.
Canadian Dairying, Dean. Briggs, Toronto, \$1.00.
Modern Methods of Milk Testing, Van Slyke. Orange Judd Co., N. Y., \$1.00.

POULTRY.

- First Lessons in Poultry Keeping*. Poultry Pub Co., 50c.

CHEMISTRY.

Sanitary and Applied Chemistry, Bailey. The Macmillan Co., \$1.25.

Chemistry of the Farm, Warington (first five chapters). Vinton & Co., Ltd., London, \$1.00.

Fertilizers, Voorhees. The Macmillan Co., \$1.50.

Plant Life, Masters. Vinton & Co., London, 90c.

BACTERIOLOGY.

Agricultural Bacteriology, Conn. P. Blakiston & Co., Phila., \$2.50.

Bacteria in Relation to Country Life, Lipman. The Macmillan Co.

FORESTRY.

A First Book of Forestry, Roth. Ginn & Co., \$1.00.

Bulletin No. 24. Forest Service, U.S. Dept. of Agriculture, 35c.

Sylvan Ontario, Muldrew. Briggs, Toronto, 50c.

FARM CARPENTRY.

Woodworking for Beginners, Wheeler. Putnam Sons, New York, \$2.50.

Benchwork, Goss. Ginn & Co., Boston, 70c.

Every Man's Own Mechanic, Spon. Ward, Lock & Co., London, \$2.00.

ELEMENTARY INDUSTRIAL ARTS.



CHARACTER OF THE COURSE.

The object of the course is to prepare a body of teachers for organizing and carrying out Elementary Industrial Training in the schools of the Province, in centres which are unable to provide well equipped manual training departments.

In the working out of the course great stress is laid on Drawing. "Every workman should for the most part be able to conceive clearly and accurately in his own mind the shape of everything he may have to make or to work with. This makes it the first condition of skill that he should master shape in his own mind and that mastery requires him to be a geometer."

The work outlined below is not completely covered in the ten weeks' term. The examples and exercises selected will, however, illustrate general principles and lay sufficient foundations for working out practical courses in the different schools of the Province. It should be understood that the standing of a Specialist in Manual Training cannot be obtained in this course; but the work done during the session will be counted *pro tanto*.

The work will be taken at the Manual Training Department of the Ontario Agricultural College. This is located in Machinery Hall which is equipped with class-rooms, a drafting room, a wood working room, an art room, and all necessary tools and appliances.

Visits will be made to local schools to study equipment, organization, etc., and to local industries to observe processes.

Students are required to provide their own equipment for art and drawing (this may be bought in Guelph). They should bring with them any outfit they already possess as well as any books dealing with the subjects of the course. Materials used in the work will be provided at cost.

Teachers are requested to bring as far as possible the work in drawing, art, basketry, etc., which they completed at the Normal Schools, so that the work in each branch may not be duplicated.

CERTIFICATES.

A certificate in Elementary Industrial Arts will be granted to those students who complete the course satisfactorily and give evidence of ability to carry on this work successfully in the schools. The daily record of class work under the observation of the instructors, as well as the results obtained at the final examinations, will both be taken into consideration.

Students whose work or conduct is unsatisfactory will be asked to retire.

TIME-TABLE.

The following time-table shows the probable allotment of time for each subject, provided the organization of the classes will permit it:

—	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
9-10.30	Drawing	Drawing	Drawing	Drawing	Drawing
10.30 to 12	Constructive Work	Constructive Work	Constructive Work	Drawing	Pedagogics, Methods, Planning lessons, etc.
1.30 to 4.30 }	Woodwork	Woodwork	Woodwork	Visits to local industries	Wood work

COURSE OF STUDY.

PEDAGOGICS, ETC.

(15 hours.)

(a) Manual Training as a factor in general education; (b) Sketch of the various systems, Russian, Swedish, Sloyd, etc.; (c) Progress of Manual Training in Canada; (d) Methods of teaching, plans of courses and lessons; organization, equipment, plans, estimates of cost, etc.; (e) Lectures dealing with industrial questions and the means of improving our opportunities; (f) Visits to local industries and consideration of industrial development in Canada.

DRAWING, APPLIED ART AND DESIGN.

(120 hours.)

Emphasis will be laid on the practical application of drawing to the industries.

Drawing: (a) The use of squares, triangles, and instruments; (b) Plane geometry, practical problems, lines, angles and polygons; (c) Con-

struction and use of plain scales; (d) Orthographic projections of solids—three or more views; (e) Cutting and oblique planes and sections; (f) Isometric projection; (g) Working drawing; (h) Machine drawing; (i) Tracing—blue printing.

Applied Art and Design: Observation of these in local manufactures and in common decorated objects such as wall paper, carpets, furniture, cloths, jewellery, iron and brasswork; practical applications in everything undertaken in the constructive work.

WOOD WORKING.

(100 hours.)

(a) Bench exercises in making articles requiring joints, mortises, fastenings with dowels, pins, cleats, keys, wedges, glue, screws and nails, etc.; (b) Calculation of the quantity of lumber necessary for making the articles and estimation of cost; (c) Tools (5 lessons), their construction, care, use and sharpening; (d) Analysis of the action of cutting tools, cutting angles, etc.

Finishing (2 lessons): (a) Staining, fuming, filling, shellacing; (b) Oil and wax polishing; (c) Pigments, priming, coats; (d) Oils, driers, brushes; (e) Painting and glazing.

Forestry and Lumber (4 lessons): (a) Forest preservation—propagation, time of cutting, pruning; (b) Trees—classes, structure, growth, seasoning, shrinking and warping; (c) Properties of woods—durability, elasticity, stiffness, density; (d) Varieties of common woods—peculiarities of each, colour, grain, identification; (e) Defects in lumber—resin pockets, knots, shakes; (f) Decay and its causes—preservation; (g) Lumbering—transportation, sawmills, grading widths.

CONSTRUCTIVE WORK.

(65 hours.)

(a) Cardboard work—thin and thick boards (20 hours); (b) Modelling—clay, sand and papier mache (10 hours); (c) Simple book binding (10 hours); (d) Simple metal work (15 hours); (e) Knife work such as can be carried on in the ordinary class room at the school desk (10 hours).

REFERENCE LIBRARY.

THEORY.

Theory of Educational Sloyd, Salomon. Phillips & Sons, London, \$1.25.

School and Society, Dewey. University Press, Chicago, \$1.00.

Education and the Larger Life, Henderson. Houghton Mifflin & Co., \$1.30.

The Place of Industries in Elementary Education, Dopp. University Press, Chicago, \$1.00.

Economics of Manual Training, Rouillion. N. W. Henley Pub. Co., \$2.00.

Manual Training made Serviceable to the School, Goetz. New-man, London.

DRAWING.

- Bases of Design*, Walter Crane. Bell & Sons, London, 6/—.
Line and Form, Walter Crane. Bell & Sons, London, 6/—.
Classroom Practice in Design, J. P. Haney. Manual Arts Press, Peoria, Ill., 50c.
Principles of Design, Batchelder. Inland Printer Co., Chicago, \$3.00.
Machine Drawing and Design, D. A. Low. Longmans Green, 2/6.
Plane and Solid Geometry, Geo. Gill, London, Eng., 50c.
Mechanical Drawing, Anthony. D. C. Heath & Co., Boston.

WOOD-WORKING.

- Educational Wood-working*, J. C. Park. The Macmillan Co., \$1.00.
Elementary Sloyd and Whittling, Larson, 75c.
Essentials of Wood-working, Griffith. Manual Arts Press, \$1.25.
Beginning Wood-work, Van Deusen. Manual Arts Press, \$1.00.
Problems in Wood-working, Murray. Manual Arts Press, 75c.
Problems in Furniture Making, Crawshaw. Manual Arts Press, Peoria, Ill., \$1.00

FINISHING.

- Polishes and Stains for Woods*, Upcott Gill, London, Eng., 25c.
Natural Woods and How to Finish Them, Berry Bros., Detroit. (Free.)

LUMBER.

- Primer of Forestry*, Pinchot. U. S. Dept. of Agriculture, 35c.
Timber, Hasluck. Cassell & Co., London, Eng.
First Book of Forestry, Rothe. Ginn & Co., Boston, \$1.25.
Our Native Trees, Keeler. Publishers' Syndicate, Toronto, \$2.50.

CONSTRUCTIVE WORK.

- Seat Work and Industrial Occupations*, Gilman I. Williams. The Macmillan Co., 50c.
Correlated Handwork, Trybom & Heller, Detroit, \$1.25.
Cardboard Construction, Trybom. Milton Bradley, \$1.00.
Paper and Cardboard Construction, A. H. Chamberlain. Whitaker Ray, 75c.
Story Telling with the Scissors, M. H. Beckwith. Milton Bradley, Springfield, Mass., 50c.
Practical and Artistic Basketry, L. R. Bradley. E. L. Kellog & Co., \$1.00.
Occupations for Little Fingers, Sage & Cooley. Scribner & Co., \$1.00.
Hand Loom Weaving, M. P. Todd. Rand McNally & Co., 90c.
Clay Modelling, Holland. Ginn & Co., 75c.
Clay Modelling, Unwin. Longmans & Co., \$1.00.
Copper Work, Rose. The Davis Press, Worcester, Mass., \$1.50.



DEPARTMENTAL REGULATIONS.

APPROVED JULY, 1904.

TEXT-BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS, HIGH SCHOOLS, AND TRAINING SCHOOLS.

1. The text-books named in Schedule "A" shall be the authorized text-books for Public Schools. Pupils taking any optional subject in the Public School course may use the text-book authorized in such optional subject. The text-books in French and German are authorized only for schools where the French or German language prevails and where the Trustees, with the approval of the Inspector, require French or German to be taught in addition to English. Text-books marked "optional" shall be introduced into the Public Schools only by resolution of the Board of Trustees. Books authorized in the Lower School of the High School course may be used by pupils taking the corresponding subjects of Continuation classes.

2. The text-books named in Schedule "B" shall be the only authorized text-books in High Schools and Collegiate Institutes for the course of study prescribed in the Lower and Middle Schools. *Books authorized for use in the Public Schools may be used in the Lower School and it is recommended that so far as the Principal may deem desirable, these books be used for the first year instead of the corresponding High School books. For the second special course or more advanced work in the Commercial department, any books recommended by the Principal may be used, with the approval of the High School Board.*

3. The text-books named in Schedule "C" shall be the authorized text-books for Model Schools, Normal Schools and the Ontario Normal College. Only such books shall be used by the teachers-in-training as may be ordered by the Principal.

4. Any text-books used in any school before the 1st July, in 1904, and recommended by resolution of the Trustees to be continued in use, shall be deemed as authorized in such school until further notice. The vertical or slanting copy books heretofore authorized, and published by the Rose Publishing Company, may be used in any Public School.

5. For religious instruction, either the Sacred Scriptures, or the Scripture Readings adopted by the Education Department, shall be used as prescribed by the Regulations of the Education Department.

PUBLIC SCHOOLS. (SCHEDULE A.)

First Reader, Part I, or A Modern Phonic Primer, Part I (Morang) or The Public School Phonic Reader, Part I.	\$0 10
First Reader, Part II, or Public School Phonic Primer, Part II, or A Modern Phonic Primer, Part II (Morang).	0 15
Second Reader	0 20
Third Reader	0 30
Fourth Reader	0 40
High School Reader	0 50
Public School Arithmetic	0 25
Public School Algebra and Euclid	0 25
Public School Geography, or Morang's Modern Geography.	0 75
Our Home and its Surroundings (for Junior Classes)	0 40
Public School Grammar	0 25
Morang's Modern English Grammar	0 60
Public School History of England and Canada	0 30
History of the Dominion of Canada (Fifth Form)	0 50
Public School Drawing Course, each number	0 05
Public School Physiology and Temperance	0 25
Public School Copy Book	0 07
Practical Speller	0 25
Public School Bookkeeping	0 25
Public School Agriculture	0 30
Public School Domestic Science (optional)	0 50

French-English Readers.

First Reader, Part I	0 10
First Reader, Part II	0 15
Second Reader	0 25
Third Reader	0 35

German-English Readers.

Ahn's First German Book	0 25
Ahn's Second German Book	0 45
Ahn's Third German Book	0 45
Ahn's Fourth German Book	0 50
Ahn's First German Reader	0 50

HIGH SCHOOLS AND COLLEGIATE INSTITUTES. (SCHEDULE B.)

English.

High School Reader	0 50
High School English Grammar	0 75
High School English Composition	0 50
Elementary English Composition (Sykes)	0 40
High School Composition from Models	0 75

History and Geography.

High School Geography (Chase).....	\$1 00
Morang's Modern Geography	0 75
High School History of England and Canada.....	0 65
Wrong's "The British Nation".....	1 00
Myers' Ancient History—Greece and Rome—Can. Ed'n	0 75
Botsford's Ancient History for Beginners (Morang)..	1 00
History of the Dominion of Canada—Clement	0 50

Mathematics.

High School Arithmetic	0 60
Arithmetic for High Schools, De Lury	0 60
High School Algebra.....	0 75
Elements of Algebra, McLellan	0 75
Elementary Plane Geometry, Baker.....	0 50
High School Euclid, J. S. McKay, <i>or</i> by A. C. McKay and R. A. Thompson (Books I., II., III., 50 cents).....	0 75

Classics.

First Latin Book and Reader	1 00
Primary Latin Book and Reader.....	1 00
White's First Greek Book	1 25
High School Beginner's Greek Book	1 50

Moderns.

High School French Grammar and Reader	1 00
High School German Grammar and Reader	1 00

Science.

High School Physical Science, Part I., 50 cents; Part II..	0 75
High School Botany, Part II	0 60
High School Chemistry.....	0 50

Bookkeeping and Drawing.

High School Bookkeeping.....	0 60
High School Drawing Course, each number.....	0 10

Cadet Drill.

High School Cadet Drill Manual (optional).....	0 40
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TRAINING SCHOOLS. (SCHEDULE C.)

County Model Schools.

School Management, Millar.....	1 00
Methods in Teaching, Edited by Tilley	1 50
Public School Physiology and Temperance	0 25
New Psychology, (Chapters 4, 5 and 6 omitted) Gordy..	1 25
Steps in the Phonic System, Cullin & Niven.....	0 50
Elementary Phonetics, Burt.....	0 35
Elementary Treatise on Arithmetic, Taylor	0 50
Mental Arithmetic, McLellan & Ames.....	0 30
Algebraical Exercises, Barnes	0 30
Introductory Geometry, McLean.....	0 50
A Guide to Nature Study, Crawford.....	0 90

Normal Schools.

Lectures on Teaching, Fitch.....	\$1 00
School Management, Millar.....	1 00
Educational Reformers, Quick.....	1 50
Applied Psychology, McLellan.....	1 00
First Year at School, Sinclair.....	0 50
High School Cadet Drill Manual.....	0 40
Hints on Teaching Arithmetic, McLean.....	0 50
Public School Domestic Science.....	0 50

Ontario Normal College.

Applied Psychology, McLellan.....	1 00
Education, Spencer.....	0 50
School Management, Millar.....	1 00
School Management, Landon.....	1 50
Educational Reformers, Quick.....	1 50
High School Cadet Drill Manual.....	0 40
Physical Culture, Houghton.....	0 50
Physical Education, MacLaren, Part II, sections II. and III.	2 00

TEACHERS' READING COURSE FOR 1905 (SCHEDULE D.)

Science of Education (Sinclair).....	1 00
A New School Management (Seeley).....	1 25
Common Sense Didactics (Sabin).....	1 25



DEPARTMENTAL REGULATIONS

APPROVED AUGUST, 1905.

TEXT-BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS, HIGH SCHOOLS, AND TRAINING SCHOOLS

(Except for Geometry, where the revised curriculum renders an additional work necessary, no change is made for the Schools from the books authorized in 1904.)

1. The text-books named in Schedule "A" shall be the authorized text-books for Public Schools. Pupils taking any optional subject in the Public School course may use the text-book authorized in such optional subject. The text-books in French and German are authorized only for schools where the French or German language prevails and where the Trustees, with the approval of the Inspector, require French or German to be taught in addition to English. Text-books marked "optional" shall be introduced into the Public Schools only by resolution of the Board of Trustees. Books authorized in the Lower School of the High School course may be used by pupils taking the corresponding subjects of Continuation classes.

2. The text-books named in Schedule "B" shall be the only authorized text-books in High Schools and Collegiate Institutes for the course of study prescribed in the Lower and Middle Schools. *Books authorized for use in the Public Schools may be used in the Lower School and it is recommended that so far as the Principal may deem desirable, these books be used for the first year instead of the corresponding High School books. For the second special course or more advanced work in the Commercial department or for Technical courses any books recommended by the Principal may be used, with the approval of the High School Board.*

3. The text-books named in Schedule "C" shall be the authorized text-books for Model Schools, Normal Schools and the Ontario Normal College. Only such books shall be used by the teachers-in-training as may be ordered by the Principal.

4. Any text-book used in any school before the 1st July, in 1905, and recommended by resolution of the Trustees to be continued in use, shall be deemed as authorized in such school until further notice. The vertical or slanting copy books heretofore authorized, and published by the Rose Printing Company. may be used in any Public School.

5. For religious instruction, either the Sacred Scriptures, or the Scripture Readings adopted by the Education Department, shall be used as prescribed by the Regulations of the Education Department.

PUBLIC SCHOOLS. (SCHEDULE A.)

First Reader, Part I., or A Modern Phonic Primer, Part I Morang) or The Public School Phonic Reader, Part I.	\$o 10
First Reader, Part II., or Public School Phonic Primer, Part II., or A Modern Phonic Primer, Part II. (Morang).	o 15
Second Reader.....	o 20
Third Reader.....	o 30
Fourth Reader.....	o 40
High School Reader.....	o 50
Public School Arithmetic.....	o 25
Public School Algebra and Euclid.....	o 25
Public School Geography, or Morang's Modern Geography.	o 75
Our Home and its Surroundings (for Junior Classes).....	o 40
Rose's Public School Geography.....	o 75
Public School Grammar.....	o 25
Morang's Modern English Grammar.....	o 60
Public School History of England and Canada.....	o 30
History of Dominion of Canada (Fifth Form).....	o 50
Duncan's Story of the Canadian People.....	o 50
Weaver's Canadian History... ..	o 50
Public School Drawing Course, each number.....	o 05
Public School Physiology and Temperance.....	o 25
Public School Copy Book.....	o 07
Practical Speller.....	o 25
Public School Bookkeeping... ..	o 25
Public School Agriculture.....	o 30
Public School Domestic Science (optional).....	o 50

French-English Readers.

First Reader, Part I.....	o 10
First Reader, Part II.....	o 15
Second Reader.....	o 25
Third Reader.....	o 35

German-English Readers.

Ahn's First German Book.....	o 25
Ahn's Second German Book.....	o 45
Ahn's Third German Book.....	o 45
Ahn's Fourth German Book.....	o 50
Ahn's First German Reader.....	o 50

HIGH SCHOOLS AND COLLEGIATE INSTITUTES. (SCHEDULE B.)

English.

High School Reader.....	0 50
The Principles and Practice of Oral Reading.....	0 50
High School English Grammar.....	0 75
High School English Composition.....	0 50
Elementary English Composition (Sykes).....	0 40
High School Composition from Models.....	0 75

History and Geography.

High School Geography (Chase).....	\$1 00
Morang's Modern Geogrpby.....	0 75
High School History of England and Canada.....	0 65
Wrong's "The British Nation".....	1 00
Myers' Ancient History—Greece and Rome—Can. Ed'n.....	0 75
Botsford's Ancient History for Beginners (Morang).....	1 00
History of the Dominion of Canada—Clement.....	0 50

Mathematics.

High School Arithmetic.....	0 60
Arithmetic for High Schools, De Lury.....	0 60
High School Algebra.....	0 75
Elements of Algebra, McLellan.....	0 75
Elementary Plane Geometry, Baker.....	0 50
Geometry for Schools, Theoretical, (Baker).....	0 50 75
High School Euclid, J. S. McKay, or by A. C. McKay and R. A. Thompson (Books I., II., III., 50 cents).....	0 75

Classics.

First Latin Book and Reader.....	1 00
Primary Latin Book and Reader.....	1 00
Hagarty's Latin Grammar.....	1 00
White's First Greek Book.....	1 25
High School Beginner's Greek Book.....	1 50

Moderns.

High School French Grammar and Reader.....	1 00
High School German Grammar and Reader.....	1 00

Science.

High School Physical Science, Part I., 50 cents ;Part II.....	0 75
High School Botany, Part II.....	0 60
High School Chemistry.....	0 50

Bookkeeping and Drawing.

High School Bookkeeping.....	0 60
Commercial Course in Practical Bookkeeping, (Dickinson and Young)	0 40
High School Drawing Course, each number.....	0 10

Cadet Drill.

High School Cadet Drill Manual (optional).....	0 40
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TRAINING SCHOOLS. (SCHEDULE C.)

County Model Schools.

School Management, Millar.....	1 00
Methods in Teaching, Edited by Tilley.....	1 50
Public School Physiology and Temperance.....	0 25
New Psychology, (Chapters 4, 5 and 6 omitted) Gordy.....	1 25
Steps in the Phonic System, Cullin & Niven.....	0 50
Elementary Phonetics. Burt.....	0 35
Elementary Treatise on Arithmetic, Taylor.....	0 50
Mental Arithmetic, McLellan & Ames.....	0 30
Algebraical Exercises, Barnes.....	0 30
Introductory Geometry, McLean.....	0 50
A Guide to Nature Study, Crawford.....	0 90

Normal Schools.

Lectures on Teaching, Fitch.....	\$1 00
School Management, Millar.....	1 00
Educational Reformers, Quick.....	1 50
Applied Psychology. McLellan.....	1 00
First Year at School, Sinclair.....	0 50
High School Cadet Drill Manual.....	0 40
Hints on Teaching Arithmetic, McLean.....	0 50
Public School Domestic Science.....	0 50

Ontario Normal College.

Applied Psychology, McLellan.....	1 00
Education, Spencer.....	0 50
School Management, Millar.....	1 00
School Management, Landon.....	1 50
Educational Reformers, Quick.....	1 50
High School Cadet Drill Manual.....	0 40
Physical Culture, Houghton	0 50
Physical Education, MacLaren, Part II., sections II. and III.	2 00

TEACHERS' READING COURSE FOR 1906. (SCHEDULE D.)

History of Education (Kemp)	1 25
School Management (Dutton).....	1 25
Birds and Poets (Burroughs).....	0 35



MEMORANDUM.

Owing to the Report of the Text Book Commission having been only recently received and the fact that several text books on one subject are on the authorized list, the difficulties consequently connected with Agreements and Copyrights, and the necessity for giving due notice to the trade, the Department has not yet been able to secure what it would consider sufficiently adequate reductions in the prices of the books now authorized for the High Schools and Public Schools, except, as has been announced, in the case of the Ontario Readers. These are now obtainable at the new prices, as follows :—

For the First Reader, Part I.....	5 cents
For the First Reader, Part II.....	7 cents
For the Second Reader.....	9 cents
For the Third Reader.....	13 cents
For the Fourth Reader.....	15 cents

The Publisher selling to any purchaser for use in Ontario shall allow the following discounts :—

- (a) On one or more copies of any book, 25 per cent. off the prescribed retail price.
- (b) On quantities of the value of \$250.00 and upwards at retail prices (the said purchase being made of any quantity of any or all of the said books and in any proportion the purchaser may desire) 25 per cent. off the prescribed retail price, and an extra 10 per cent. thereafter.

Early in October next the contents and prices of the list of books now in use in the schools will be revised and arrangements made for the publication of such text books as may be required.

C. W. JAMES,

Acting Deputy Minister.

TORONTO, August 8th, '07.



DEPARTMENTAL REGULATIONS

TEXT-BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS, HIGH SCHOOLS, AND TRAINING SCHOOLS

(Except for Geometry, where the revised curriculum renders an additional work necessary, no change is made for the Schools from the books authorized in 1904.)

1. The text-books named in Schedule "A" shall be the authorized text-books for Public Schools. Pupils taking any optional subject in the Public School course may use the text-book authorized in such optional subject. The text-books in French and German are authorized only for schools where the French or German language prevails and where the Trustees, with the approval of the Inspector, require French or German to be taught in addition to English. Text-books marked "optional" shall be introduced into the Public Schools only by resolution of the Board of Trustees. Books authorized in the Lower School of the High School course may be used by pupils taking the corresponding subjects of Continuation Classes.

2. The text-books named in Schedule "B" shall be the only authorized text-books in High Schools and Collegiate Institutes for the course of study prescribed in the Lower and Middle Schools. *Books authorized for use in the Public Schools may be used in the Lower School and it is recommended that so far as the Principal may deem desirable, these books be used for the first year instead of the corresponding High School books. For the second special course or more advanced work in the Commercial department or for Technical courses any books recommended by the Principal may be used, with the approval of the High School Board.*

3. The text-books named in Schedule "C" shall be the authorized text-books for Model Schools. Only such books shall be used by the teachers-in-training as may be ordered by the Principal.

4. Any text-book used in any school before the 1st July, in 1905, and recommended by resolution of the Trustees to be continued in use, shall be deemed as authorized in such school until further notice. The vertical or slanting copy books heretofore authorized, and published by the Rose Printing Company, may be used in any Public School.

5. For religious instruction, either the Sacred Scriptures, or the Scripture Readings adopted by the Education Department, shall be used as prescribed by the Regulations of the Education Department.

6. Early in October next, the contents and prices of the list of books now in use in the schools will be revised and arrangements made for the publication of such text books as may be required.

7. Owing to the Report of the Text Book Commission having been only recently received and the fact that several text-books on one subject are on the authorized list, the difficulties consequently connected with agreements and copyrights, and the necessity for giving due notice to the trade, the Department has not yet been able to secure what it would consider sufficiently adequate reductions in the prices of the books now authorized for the High Schools and Public Schools, except, as has been announced, in the case of the Ontario Readers.

PUBLIC SCHOOLS. (SCHEDULE A.)

Ontario Readers :	For the First Reader, Part I.....	5 cents.
“ “	For the First Reader, Part II.....	7 cents.
“ “	For the Second Reader.....	9 cents.
“ “	For the Third Reader.....	13 cents.
“ “	For the Fourth Reader.....	15 cents.

The Publisher selling to any purchaser for use in Ontario shall allow the following discounts on the Ontario Readers ;—

- (a) On one or more copies of any book, 25 per cent. off the prescribed retail price.
- (b) On quantities of the value of \$250.00 and upwards at retail prices (the said purchase being made of any quantity of any or all of the said books and in any proportion the purchaser may desire), 25 per cent. off the prescribed retail price, and an extra ten per cent. thereafter.

A Modern Phonic Primer, Part I. (Morang), <i>or</i> the Public School Phonic Reader, Part I.	\$0 10
Public School Phonic Primer, Part II., <i>or</i> A Modern Phonic Primer, Part II. (Morang).....	0 15
High School Reader.....	0 50
Public School Arithmetic.....	0 25
Public School Algebra and Euclid	0 25
Public School Geography, <i>or</i> Morang's Modern Geography ...	0 75
Our Home and its Surroundings (for Junior classes)	0 40
Rose's Public School Geography	0 75
Public School Grammar.....	0 25
Morang's Modern English Grammar.....	0 25
Public School History of England and Canada.....	0 30

History of Dominion of Canada (Fifth Form).....	\$0 50
Duncan's Story of the Canadian People.....	0 50
Weaver's Canadian History.....	0 50
Public School Drawing Course, each number.....	0 05
Public School Physiology and Temperance.....	0 25
Public School Copy Book.....	0 07
Practical Speller.....	0 25
Public School Bookkeeping.....	0 25
Public School Agriculture.....	0 30
Public School Domestic Science (optional).....	0 50

French-English Readers.

First Reader, Part I.....	0 10
First Reader, Part II.....	0 15
Second Reader.....	0 25
Third Reader.....	0 36

German-English Readers.

Ahn's First German Book.....	0 25
Ahn's Second German Book.....	0 45
Ahn's Third German Book.....	0 45
Ahn's Fourth German Book.....	0 50
Ahn's First German Reader.....	0 50

HIGH SCHOOL AND COLLEGIATE INSTITUTES. (SCHEDULE B.)

English.

High School Reader.....	\$0 50
The Principles and Practice of Oral Reading.....	0 50
High School English Grammar.....	0 75
High School English Composition.....	0 50
Elementary English Composition (Sykes).....	0 40
High School Composition from Models.....	0 75

History and Geography.

High School Geography (Chase).....	1 00
Morang's Modern Geography.....	0 75
High School History of England and Canada.....	0 65
Wrong's "The British Nation".....	1 00
Myers' Ancient History—Greece and Rome—Canadian Edition	0 75
Botsford's Ancient History for Beginners (Morang).....	1 00
History of the Dominion of Canada (Clement).....	0 50

Mathematics.

High School Arithmetic.....	0 60
Arithmetic for High Schools (De Lury).....	0 60
High School Algebra.....	0 75

Elements of Algebra (McLellan).....	\$0 75
Elementary Plane Geometry (Baker).....	0 50
Geometry for Schools, Theoretical (Baker).....	0 75
High School Euclid (J. S. McKay), <i>or</i> by A. C. McKay and R. A. Thompson (Books I., II., III., 50 cents).....	0 75

Classics.

First Latin Book and Reader.....	1 00
Primary Latin Book and Reader.....	1 00
Hagarty's Latin Grammar.....	1 00
White's First Greek Book.....	1 25
High School Beginner's Greek Book.....	1 50

Moderns.

High School French Grammar and Reader.....	1 00
High School German Grammar and Reader.....	1 00

Science.

High School Physical Science, Part I., 50 cents ; Part II.....	0 75
High School Botany, Part II.....	0 60
High School Chemistry.....	0 50

Bookkeeping and Drawing.

High School Bookkeeping.....	0 60
Commercial Course in Practical Bookkeeping (Dickinson and Young).....	0 40
High School Drawing Course, each number.....	0 10

Cadet Drill.

High School Cadet Drill Manual (optional).....	0 40
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COUNTY MODEL SCHOOLS. (SCHEDULE C.)

School Management (Millar).....	\$1 00
Methods in Teaching (Edited by Tilley).....	1 50
Public School Physiology and Temperance.....	0 25
New Psychology (Chapters 4, 5 and 6 omitted) (Gordy).....	1 25
Steps in the Phonic System (Cullin and Niven).....	0 50
Elementary Phonetics (Burt).....	0 35
Elementary Treatise on Arithmetic (Taylor).....	0 50
Mental Arithmetic (McLellan and Ames).....	0 30
Algebraical Exercises (Barnes).....	0 30
Introductory Geometry (McLean).....	0 50
A Guide to Nature Study (Crawford).....	0 90



DEPARTMENTAL REGULATIONS

TEXT - BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS HIGH SCHOOLS, AND TRAINING SCHOOLS

(Except for Geometry, where the revised curriculum renders an additional work necessary,
no change is made for the Schools from the books authorized in 1904.)

1. The text-books named in Schedule "A" shall be the authorized text-books for Public Schools. Pupils taking any optional subject in the Public School course may use the text-book authorized in such optional subject. The text-books in French and German are authorized only for schools where the French or German language prevails and where the Trustees, with the approval of the Inspector, require French or German to be taught in addition to English. Text-books marked "optional" shall be introduced into the Public Schools only by resolution of the Board of Trustees. Books authorized in the Lower School of the High School course may be used by pupils taking the corresponding subjects of Continuation Classes.

2. The text-books named in Schedule "B" shall be the only authorized text-books in High Schools and Collegiate Institutes for the course of study prescribed in the Lower and Middle Schools. *Books authorized for use in the Public Schools may be used in the Lower School and it is recommended that so far as the Principal may deem desirable, these books be used for the first year instead of the corresponding High School books. For the second special course or more advanced work in the Commercial department or for Technical courses any books recommended by the Principal may be used, with the approval of the High School Board.*

3. The text-books named in Schedule "C" shall be the authorized text-books for Model Schools. Only such books shall be used by the teachers-in-training as may be ordered by the Principal.

4. Any text-book used in any school before the 1st July, in 1905, and recommended by resolution of the Trustees to be continued in use, shall be deemed as authorized in such school until further notice. The vertical or slanting copy books heretofore authorized, and published by the Rose Printing Company, may be used in any Public School.

5. For religious instruction, either the Sacred Scriptures, or the Scripture Readings adopted by the Education Department, shall be used as prescribed by the Regulations of the Education Department.

6. Early in October next, the contents and prices of the list of books now in use in the schools will be revised and arrangements made for the publication of such text-books as may be required.

7. Owing to the Report of the Text-Book Commission having been only recently received and the fact that several text-books on one subject are on the authorized list, the difficulties consequently connected with agreements and copyrights, and the necessity for giving due notice to the trade, the Department has not yet been able to secure what it would consider sufficiently adequate reductions in the prices of the books now authorized for the High Schools and Public Schools, except, as has been announced, in the case of the Ontario Readers.

PUBLIC SCHOOLS. (SCHEDULE A.)

Ontario Readers: For the First Reader, Part I.....	5 cents.
For the First Reader, Part II.....	7 cents.
For the Second Reader	9 cents.
For the Third Reader	13 cents.
For the Fourth Reader	15 cents.

The Publisher selling to any purchaser for use in Ontario shall allow the following discounts on the Ontario Readers:

- (a) On one or more copies of any book, 25 per cent. off the prescribed retail price.
- (b) On quantities of the value of \$250.00 and upwards at retail prices (the said purchase being made of any quantity of any or all of the said books and in any proportion the purchaser may desire), 25 per cent. off the prescribed retail price, and an extra 10 per cent. thereafter.

A Modern Phonic Primer, Part I. (Morang), <i>or</i> the Public School Phonic Reader, Part I.	\$0 10
Public School Phonic Primer, Part II., <i>or</i> A Modern Phonic Primer, Part II. (Morang)	0 15
High School Reader	0 50
Public School Arithmetic	0 25
Public School Algebra and Euclid	0 25
Public School Geography, <i>or</i> Morang's Modern Geography...	0 75
Our Home and its Surroundings (for Junior classes)	0 40
Rose's Public School Geography	0 75
Public School Grammar	0 25
Morang's Modern English Grammar	0 25
Public School History of England and Canada	0 30
History of Dominion of Canada (Fifth Form)	0 50
Duncan's Story of the Canadian People	0 50
Weaver's Canadian History	0 50
Public School Drawing Course, each number	0 05

Public School Physiology and Temperance	\$o 25
Public School Copy Book	o 07
Practical Speller	o 25
Public School Bookkeeping	o 25
Public School Agriculture	o 30
Public School Domestic Science (optional)	o 50

French-English Readers.

First Reader, Part I.	o 10
First Reader, Part II.	o 15
Second Reader	o 25
Third Reader	o 36

German-English Readers.

Ahn's First German Book	o 25
Ahn's Second German Book	o 45
Ahn's Third German Book	o 45
Ahn's Fourth German Book	o 50
Ahn's First German Reader	o 50

HIGH SCHOOL AND COLLEGIATE INSTITUTES. (SCHEDULE B.)

English.

High School Reader	o 50
The Principles and Practice of Oral Reading	o 50
High School English Grammar	o 75
High School English Composition	o 50
Elementary English Composition (Sykes)	o 40
High School Composition from Models	o 75

History and Geography.

High School Geography (Chase)	1 00
Morang's Modern Geography	o 75
High School History of England and Canada	o 65
Wrong's "The British Nation"	1 00
Myers' Ancient History—Greece and Rome—Canadian Edition	o 75
Botsford's Ancient History for Beginners (Morang)	1 00
History of the Dominion of Canada (Clement)	o 50

Mathematics.

High School Arithmetic	o 60
Arithmetic for High Schools (De Lury)	o 60
High School Algebra	o 75
Elements of Algebra (McLellan)	o 75

Elementary Plane Geometry (Baker)	\$ 0 50
Geometry for Schools, Theoretical (Baker)	0 75
High School Euclid (J. S. McKay), or by A. C. McKay and R. A. Thompson (Books I., II., III., 50 cents)	0 75

Classics.

First Latin Book and Reader	1 00
Primary Latin Book and Reader	1 00
Hagarty's Latin Grammar	1 00
White's First Greek Book	1 25
High School Beginner's Greek Book	1 50

Moderns.

High School French Grammar and Reader	1 00
High School German Grammar and Reader.....	1 00

Science.

High School Physical Science, Part I., 50 cents; Part II.....	0 75
High School Botany, Part II.	0 60
High School Chemistry	0 50

Bookkeeping and Drawing.

High School Bookkeeping	0 60
Commercial Course in Practical Bookkeeping (Dickinson and Young)	0 40
High School Drawing Course, each number	0 10

Cadet Drill.

High School Cadet Drill Manual (optional)	0 40
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COUNTY MODEL SCHOOLS. (SCHEDULE C.)

School Management (Millar)	1 00
Methods in Teaching (Edited by Tilley)	1 50
Public School Physiology and Temperance	0 25
New Psychology (Chapters 4, 5 and 6 omitted) (Gordy)	1 25
Steps in the Phonic System (Cullin and Niven)	0 50
Elementary Phonetics (Burt)	0 35
Elementary Treatise on Arithmetic (Taylor)	0 50
Mental Arithmetic (McLellan and Ames)	0 30
Algebraical Exercises (Barnes)	0 30
Introductory Geometry (McLean)	0 50
A Guide to Nature Study (Crawford)	0 90

EDUCATION DEPARTMENT,
August, 1907.



DEPARTMENTAL REGULATIONS

TEXT-BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS AND HIGH AND CONTINUATION SCHOOLS.

1. *Until the midsummer vacation of 1909, but only for the schools in which they are now in use, the text-books named in Schedule A below shall be the authorized text-books for Public Schools; and those in Schedule B, for the Lower and Middle Schools of Continuation and High Schools and Collegiate Institutes; except where the use of any of said text-books is otherwise limited in said Schedules.*

2. (a) Books authorized for Public Schools may be used in the Lower School of High and Continuation Schools and Collegiate Institutes.

(b) Books authorized for use in the Lower School of the High Schools may be used by pupils taking the corresponding subjects of the Fifth Form of the Public Schools.

3. For the High School Upper School, for technical courses, and for more advanced work than the First Special Course in the Commercial Departments of the High and Continuation Schools and Collegiate Institutes, any books recommended by the Principal may be used with the approval of the Board of School Trustees.

4. Any text-books used in any school before the 1st of July, 1905, and recommended by the resolution of the Board of School Trustees on or before the September following to be continued in use in its school, shall be deemed as authorized in such school until the Midsummer vacation of 1909 only.

5. For Religious Instruction, the Sacred Scriptures, or the Selected Scripture Readings of the International Bible-Reading Association, or the Scripture Readings adopted by the Department of Education shall be used as prescribed by the Regulations of the Department of Education, and as may be determined by the Board of School Trustees.

NOTE.—*It is expected that text-books will be ready in time to replace those the authorization of which will cease as provided herein.*

Schedule A.

PUBLIC SCHOOLS.

Ontario Readers : For the First Reader, Part I....	5 cents.
For the First Reader, Part II....	7 cents.
For the Second Reader.....	9 cents.
For the Third Reader.....	13 cents.
For the Fourth Reader.....	15 cents.

The Publisher selling to any purchaser for use in Ontario shall allow the following discounts on the Ontario Readers :

- (1) On one or more copies of any book, 25 per cent. off the prescribed retail price.
- (2) On quantities of the value of \$250.00 and upwards at retail prices (the said purchase being made of any quantity of any or all of the said books and in any proportion the purchaser may desire), 25 per cent. off the prescribed retail price, and an extra 10 per cent thereafter.

A Modern Phonic Primer, Part I.....	\$0 10
A Modern Phonic Primer, Part II.....	0 15
The Public School Phonic Reader, Part I. (<i>authorization terminates November 1st, 1909</i>).....	0 10
Public School Phonic Primer, Part II.....	0 15
High School Reader.....	0 50
Public School Arithmetic.....	0 25
Public School Algebra and Euclid.....	0 25
Public School Geography or Morang's Modern Geography....	0 75
Our Home and its Surroundings (for Junior classes).....	0 40
Rose's Public School Geography.....	0 75
Public School Grammar.....	0 25
Morang's Modern English Grammar.....	0 25
Public School History of England and Canada.....	0 30
History of Dominion of Canada (Fifth Form).....	0 50
Duncan's Story of the Canadian People.....	0 50
Weaver's Canadian History.....	0 50
Public School Drawing Course, each number.....	0 05
Public School Physiology and Temperance.....	0 25
Public School Copy Book.....	0 07
Public School Writing Course.....	0 07
Practical Speller.....	0 25
Ontario Copy Books.....(See Note below).	
Public School Bookkeeping.....	0 25
Public School Agriculture.....	0 30
Public School Domestic Science.....	0 50

NOTE.—(1) *The Ontario Copy Books which are being prepared by the Education Department will be ready early in October. The price will then be announced.*

(2) *A manual of exercises for securing freedom and control of movement as well as accuracy of form is in course of preparation for schools in which copy books are not used.*

French-English Readers :

First Reader, Part I.....	0 10
First Reader, Part II.....	0 15
Second Reader.....	0 25
Third Reader.....	0 35

German-English Readers :

Ahn's First German Book.....	0 25
Ahn's Second German Book.....	0 45
Ahn's Third German Book.....	0 45
Ahn's Fourth German Book.....	0 50
Ahn's First German Reader.....	0 50

Schedule B.**HIGH AND CONTINUATION SCHOOLS AND COLLEGIATE INSTITUTES.***English.*

High School Reader.....	0 50
The Principles and Practice of Oral Reading.....	0 50
High School English Grammar.....	0 75
High School English Composition.....	0 50
Elementary English Composition (Sykes).....	0 40
High School Composition from Models.....	0 75

History and Geography.

High School Geography (Chase).....	1 00
Morang's Modern Geography.....	0 75
High School History of England and Canada.....	0 65
Wrong's The British Nation.....	1 00
Myers' Ancient History—Greece and Rome—Canadian Edition.....	0 75
Botsford's Ancient History for Beginners.....	1 00
History of the Dominion of Canada (Clement).....	0 50

Mathematics.

High School Arithmetic.....	0 60
Arithmetic for High Schools (De Lury).....	0 60
High School Algebra.....	0 75
Elements of Algebra (McLellan).....	0 75
Hall and Knight's Junior Algebra (<i>authorized for any school until the midsummer vacation of 1915</i>).....	0 50
Elementary Plane Geometry (Baker).....	0 50
Geometry for Schools, Theoretical (Baker).....	0 75
High School Euclid, by J. S. McKay, or by A. C. McKay and R. A. Thompson (Books I., II., III., 50 cents).....	0 75

Classics.

Robertson and Carruthers' Latin Lessons for Beginners (<i>authorized for any School until the midsummer vacation of 1915</i>).....	0 60
First Latin Book and Reader.....	1 00
Primary Latin Book and Reader.....	1 00
Hagarty's Latin Grammar.....	1 00
White's First Greek Book (<i>authorized for any School until further notice</i>).....	1 25
High School Beginner's Greek Book.....	1 50

Moderns.

High School French Grammar and Reader.....	1 00
High School German Grammar and Reader.....	1 00

Science.

High School Physical Science, Part I., 50 cents ; Part II.....	0 75
High School Chemistry.....	0 50
High School Botany, Part II.....	0 60

Bookkeeping and Drawing.

High School Bookkeeping.....	0 60
Commercial Course in Practical Bookkeeping (Dickinson and Young).....	0 40
High School Drawing Course—Each number.....	0 10

NOTE.—*The publisher shall sell direct to any purchaser, for use in Ontario, Robertson and Carruthers' Latin Lessons for Beginners at 48 cents, and Hall and Knight's Junior Algebra at 40 cents, each net.*

EDUCATION DEPARTMENT, August, 1908.



IMPORTANT NOTICE.

Text-books.

The Minister hereby instructs Inspectors of Rural Public Schools to transmit promptly a copy of the accompanying circular to each School Board in his inspectorate. A copy has also been sent to the urban Public Schools and Inspectors and to the Secretaries and Principals of High and Continuation Schools and Collegiate Institutes.

As changes have been made in the text-book regulations and the list of text-books for the coming school year, it is important that all concerned should govern themselves in accordance with the provisions of the circular.

EDUCATION DEPARTMENT,

TORONTO, July, 1909.



ONTARIO
DEPARTMENT OF EDUCATION

DEPARTMENTAL

Text-Book Regulations

AND

Text-Books authorized for use in Public, High
and Continuation Schools and Collegiate
Institutes

July, 1909

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO :
Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1909

Departmental Text-Book Regulations.

TEXT BOOKS AUTHORIZED FOR USE IN PUBLIC, HIGH, AND CONTINUATION SCHOOLS AND COLLEGIATE INSTITUTES.

1. The text-books named in Schedule A below shall be the authorized text-books for Public Schools, and those in Schedule B, for the Lower and Middle Schools of High and Continuation Schools and Collegiate Institutes, as follows : in both schedules, the text-books newly authorized in 1908 and 1909 are authorized for use in any School and the limit of their authorization is specified in italics within brackets after each name ; and the authorization of the other text-books, which were authorized before 1908, is now limited to the midsummer vacation of 1910 and to the Schools in which they were in use before July, 1909, and to the editions then authorized.

2.—(1) Books authorized for use in Public Schools are authorized for use by pupils taking the corresponding subjects in the Lower School of High and Continuation Schools and Collegiate Institutes.

(2) Books authorized for use in the Lower School of High and Continuation Schools and Collegiate Institutes are authorized for use by pupils taking the corresponding subjects in the Fifth Form of Public Schools.

3. For the High School Upper School, for Technical Courses, and, until the midsummer vacation of 1910, for more advanced work than the First Year Course in the Commercial Departments of High and Continuation Schools and Collegiate Institutes, any books may be used, which have been recommended by the Principal and approved by resolution of the Board of School Trustees.

4.—(1) The editions of text-books in Schedule D below, which were used in any school before the first of July, 1909, and the continued use of which is recommended by resolution of the Board of School Trustees on or before the reopening of the Schools in August or September, as the case may be, shall be deemed authorized for such school at the maximum prices indicated, until their authorization is cancelled by the Minister of Education.

(2) Unless prevented by the resolution of the Board of School Trustees, the Principal shall introduce next August or September, as the case may be, the text-books newly authorized in 1908 and 1909.

NOTE. Regulation 4 (1) above provides for the continued use of the text-books enumerated in Schedule D, in *all* or in *any* of the classes of a School.

Principals who desire to retain any of the aforesaid text-books for the sake of classes that already possess them, are hereby warned that they must secure the resolution of the Board of School Trustees on or before the date specified in 4 (1) above, to enable them to do so.

5. The Principal shall submit to the Inspector at his official visit a copy of the resolutions provided for in 3 and 4 (1) above, duly dated and certified by the Secretary of the Board.

6. For Religious Instruction, the Sacred Scriptures, or the Selected Scripture Readings of the International Bible Reading Association, or the Scripture Readings adopted by the Department of Education shall be used as prescribed by the Regulations of the Department of Education and as may be determined by the Board of School Trustees.

NOTE.—The complete list of new text-books will be ready by August, 1910.

SCHEDULE A.

PUBLIC SCHOOLS.

The Public School Phonic Reader, Part I.....	\$0.10
(Authorization terminates November 1st, 1909).	
Public School Arithmetic.....	.25
Public School Algebra and Euclid .....	.25
Public School Geography, or Morang's Modern Geography .....	.75
Our Home and its Surroundings (for Junior Classes) .....	.40
Rose's Public School Geography .....	.75
Public School Grammar .....	.25
Morang's Modern English Grammar.....	.25
Public School History of England and Canada...	.30
History of Dominion of Canada (Fifth Form)...	.50
Duncan's History of the Canadian People.....	.50
Weaver's Canadian History .....	.50
Public School Physiology and Temperance.....	.25
Ontario Public School Speller. (<i>Authorized until the midsummer vacation of 1916</i>).....	.15
Ontario Copy Books, Five Numbers. (<i>Author- ized until the midsummer vacation of 1915</i>) each	.02
Ontario Writing Course. (<i>Authorized until the midsummer vacation of 1915</i>).....	.05
Ontario Blank Copy Books. (<i>Authorized until the midsummer vacation of 1915</i>).....	.02
Ontario Blank Drawing Books. (See Note 3.)	
Ontario Blank Drawing Pads. (See Note 3.)	
Ontario Readers.— <i>New Series. (Authorized until the midsummer vacation of 1919.)</i>	
Primer.....	\$0.04
First Book .....	.06
Second Book .....	.09
Third Book.....	.14
Fourth Book .....	.16
English-French Readers :	
First Reader, Part I.....	.10
First Reader, Part II.....	.15
Second Reader .....	.25
Third Reader.....	.35

English-German Readers :

Ahn's First German Book	\$0.25
Ahn's Second German Book .....	.45
Ahn's Third German Book .....	.45
Ahn's Fourth German Book .....	.50
Ahn's First German Reader .....	.50

NOTE 1.—The Ontario Writing Course contains headlines and is a pupil's manual of exercises for securing freedom and control of movement, as well as accuracy of form. It is designed to be used in connection with the Ontario Blank Copy Books, which have no head lines. The manual may be purchased by the pupils or, better, purchased for their use by Boards of School Trustees as part of the school equipment.

NOTE 2.—No text books are prescribed for pupils in Agriculture and Household Science. These subjects shall be taken up under the teacher, and suitable reference books provided in the library by the Board of School Trustees.

NOTE 3.—Drawing Books are no longer authorized. The subject shall be taken up by the teacher in accordance with the Course of Study. After Jan. 1st, 1910, blank drawing books and pads, from which sheets may be detached, will be authorized, and shall be used by the pupils.

SCHEDULE B.

HIGH AND CONTINUATION SCHOOLS AND COLLEGIATE INSTITUTES.

English :

High School Reader	\$0.50
The Principles and Practice of Oral Reading ....	.50
High School English Grammar .....	.75
High School English Composition .....	.50
Elementary English Composition (Sykes) .....	.40
High School Composition from Models .....	.75

History and Geography :

Ontario High School Physical Geography. (Authorized until the midsummer vacation of 1916) .....	.60
Morang's Modern Geography .....	.75
High School History of England and Canada .....	.65
Wrong's The British Nation	1.00
History of the Dominion of Canada (Clement) ....	.50
Ontario High School Ancient History. (Authorized until the midsummer vacation of 1916) .. ...	.75

Mathematics :

Ontario High School Arithmetic.—New Edition. (Authorized until the midsummer vacation of 1916) .....	.40
Hall and Knight's Junior Algebra. (Authorized until the midsummer vacation of 1915) .....	.50
Elementary Plane Geometry (Baker) .....	.50
Geometry for Schools, Theoretical, (Baker) .....	.75

Classics :

Robertson and Carruthers' Latin Lessons for Be- ginners. (Authorized until the midsummer vaca- tion of 1915) .....	.60
White's First Greek Book. (Authorized until further notice)	1.25

Moderns :

High School French Grammar and Reader.....	\$1.00
High School German Grammar.— <i>New Edition.</i> (<i>Authorized until the midsummer vacation of</i> <i>1916</i>) .....	.70

Science :

High School Physical Science, Part I.....	.50
High School Physical Science, Part II.....	.75
Ontario High School Chemistry.....	.40
Ontario High School Laboratory Manual in Chem- istry. (<i>Both the Chemistry and Laboratory</i> <i>Manual are authorized until the midsummer</i> <i>vacation of 1916</i>).....	.20
High School Botany, Part II.....	.60

Book-Keeping :

Ontario School Book-Keeping. (<i>Authorized until</i> <i>the midsummer vacation of 1916</i>)30
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NOTE 1.—After the midsummer vacation of 1910, no text book will be authorized in Elementary Plane Geometry. The work will be taken up under the teacher in accordance with the Course of Study, with reference books in the School Library.

NOTE 2.—The Boards of Trustees shall provide in the School Library a supply of the Laboratory Manual in Chemistry sufficient for class use by the pupils, who shall not be required to buy it.

NOTE 3.—After the midsummer vacation of 1910 the High School Botany, Part II, will no longer be authorized as a text book for pupils. Boards of Trustees shall provide in the Library a supply of Floras sufficient for class use by the pupils, who shall not be required to buy them.

NOTE 4.—No text books are authorized for pupils in Agriculture and Household Science. These subjects shall be taken up under the teacher, in accordance with the Course of Study, with suitable reference books provided by the Boards of Trustees in the School Library.

NOTE 5.—Drawing Books are no longer authorized. The subject shall be taken up by the teacher in accordance with the Course of Study. After January 1st, 1910, blank drawing books and pads, from which sheets may be detached, will be authorized, and shall be used by the pupils.

SCHEDULE C.

SPECIAL PRICES OF BOOKS NOW AUTHORIZED.

The publishers shall sell *direct*, in any quantity, to any purchaser for use in Ontario the following, at 20% less than the maximum prices of Schedules A and B, the prices being net, and for single copies being as follows :

A. PUBLIC SCHOOLS. (*See Schedule A.*)

Ontario Readers. — <i>New Series.</i> Primer.....	\$0.04
First Book.....	.05
Second Book...	.08
Third Book....	.12
Fourth Book ...	.13
Ontario School Speller.....	.12
* Ontario Copy Books, five numbers, each.....	.02

The publishers shall sell *direct*, in any quantity, to any purchaser in Ontario the following, at 25% less than the maximum prices of Schedule A, the prices being net, and for single copies being as follows :

Ontario Writing Course.....	\$0.04
Ontario Blank Copy Books .....	.02

II. HIGH AND CONTINUATION SCHOOLS AND COLLEGIATE INSTITUTES.

(See Schedule B.)

Ontario High School Physical Geography.....	\$0.48
Ontario High School Ancient History.....	.60
Ontario High School Arithmetic. — <i>New Edition</i> ..	.32
Ontario School Book-keeping.....	.24
Ontario High School Chemistry .....	.32
Ontario High School Laboratory Manual in Chemistry .....	.16
Hall and Knight's Junior Algebra.....	.40
Robertson and Carruthers' Latin Lessons.....	.48
High School German Grammar. — <i>New Edition</i> ..	.56

SCHEDULE D.

TEXT BOOKS NO LONGER AUTHORIZED.

The following text books, which were on the authorized list for 1908, are no longer authorized, except as provided by Regulation 4 (1) above :

I. PUBLIC SCHOOLS.

A Modern Phonic Primer, Part I.....	\$0.10
A Modern Phonic Primer, Part II.....	.15
The Public School Phonic Primer, Part II .....	.15
Public School Drawing Course, each number....	.05
Public School Copy Books, each number .....	.07
Public School Writing Course.....	.07
Practical Speller.....	.25
Public School Book-keeping .....	.25
Public School Agriculture.....	.30
Public School Domestic Science.....	.50

The Public Phonic Reader, Part I, 10c., the authorization of which terminates Nov. 1st, 1909, may also be continued as provided by Regulation 4 (1) above.

II. HIGH SCHOOLS.

History and Geography :

High School Geography, Chase.....	\$1.00
Myers' Ancient History, Greece and Rome, Canadian Edition.....	.75
Botsford's Ancient History for Beginners.....	1.00

Mathematics :

High School Arithmetic.— <i>Old Edition</i>	\$0.60
Arithmetic for High Schools, DeLury.....	.60
High School Algebra .....	.75
Elements of Algebra (McLellan).....	.75
High School Euclid, by J. S. McKay <i>or</i> by A. C. McKay and R. A. Thompson (Books I, II, III, 50 cents).....	.75

Classics :

First Latin Book and Reader.....	1.00
Primary Latin Book and Reader.....	1.00
Hagarty's Latin Grammer	1.00
High School Beginner's Greek Book.....	1.50

Moderns :

High School German Grammar and Reader.— <i>Old Edition</i>	1.00
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Science :

High School Chemistry50
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Book-keeping and Drawing :

High School Book-keeping.....	.60
Commercial Course in Practical Book-keeping (Dickenson & Young)40
High School Drawing Course—each Number.....	.10

REPEAL OF REGULATIONS.

Regulation 105 (2) and (3) of 1904 is hereby repealed.

Sections of Schools Acts, 1909.

AUTHORIZED TEXT BOOKS.

HIGH SCHOOLS ACT.

52.—(1) A teacher shall not use or permit to be used as a text-book in a high school any book except such as is authorized by the Regulations, and the Minister, upon the report of the inspector, may withhold the whole or any part of the legislative grant in respect of any high school in which any unauthorized book is so used.

(2) Subject to the Regulations, an authorized text-book in actual use in a high school may, with the written approval of the board, be changed by the teacher for any other authorized text-book on the same subject. 1 Edw. VII., c. 40, s. 50.

PUBLIC SCHOOLS ACT.

84.—An authorized text-book in actual use may be changed by the teacher for any other authorized text-book on the same subject with the written approval of the board and subject to the Regulations. 1 Edw. VII., c. 39, s. 97 (1).

112. If a teacher negligently or wilfully permits an unauthorized book to be used as a text book by the pupils of his school the Minister, on the report of the inspector, may suspend such teacher, and the board may also deduct from his salary a sum equal to so much of the legislative grant as has been withheld on the account of the use of such book or any less sum at its discretion. 1 Edw. VII., c. 39, s. 97 (2).

99.—(1) Subject to the Regulations it shall be the duty of every Public School Inspector,

(g) To withhold his order for the amount apportioned from the legislative or municipal grant;

(iv) Where the teacher uses or permits to be used as a text-book any book not authorized by the Regulations;

and in every case to report to the Board and to the Minister his reasons for so doing.

DEPARTMENT OF EDUCATION,

July, 1909.



CHANGES IN THE DEPARTMENT OF EDUCATION AND SCHOOLS ACTS.

Circular to School Officials and Municipal Councils.

Important changes, affecting both the Education Department and the Public School system, were made during the recent session of the Legislature. To some of these changes the Minister desires to direct the special attention of school officials and municipal councils.

THE DEPARTMENT OF EDUCATION.

Under the Act respecting the Department of Education, a Superintendent of Education has been appointed, and an Advisory Council will be elected next November. Subject to the Minister, the Acts, and the Regulations, the Superintendent will have the general supervision and direction of all branches of the Primary and Secondary School systems; and the Advisory Council, besides discharging the examination functions of the present Educational Council, will act as a consultative council to the Minister on such subjects as he may submit to it for consideration. Notwithstanding these provisions, all official correspondence, it should be noted, shall, as heretofore, be conducted through the Deputy Minister.

GENERAL IMPROVEMENT OF THE PUBLIC SCHOOLS.

After due consideration of the educational situation, which, from various causes, is now a critical one, the Government became convinced that it would be necessary, as the first step in the general improvement of the Public Schools, to provide without delay better trained teachers and to secure an increase in the salaries of the rural teachers in particular. These conclusions were approved of by the Legislature at its recent session; and, accordingly, a first grant was then made for the erection of additional Normal Schools to supersede nearly all the present Model Schools, and a scheme of minimum salaries was adopted, graded according to the section assessment.

Without a general improvement in salaries, it would be manifestly useless to require candidates for the teaching profession to take, as the scheme contemplates, a longer course of professional training. This improvement has, indeed, become imperative in view of the greater inducements now offered in other callings and the increasing yearly exodus from the ranks of the Ontario teachers.

Section 39 of the amending Public Schools Act of 1906 amends section 70 of the Act of 1901. The following are its main provisions, which, owing to their importance, are here given in full:

(1) The municipal council of every organized county shall levy and collect by an equal rate upon the taxable property of the whole county (not included in urban municipalities or annexed to any urban municipality for school purposes) according to the equalized assessments of the municipalities, in the manner provided by this Act and The Municipal and Assessment Acts, a sum which shall be at least the equivalent of all special grants made by the Legislative Assembly to the rural schools of the county, and such sum shall be payable to the trustees of the respective schools receiving such legislative special grants in the same proportions as the said special grants are apportioned.

(2) Where the assessed value of all the taxable property of the public school supporters in any township of an organized county is at least equal to an average assessment of \$30,000 for each public school section therein, the municipal council of such township shall levy and collect by assessment upon the taxable property of the public school supporters of the whole township in the manner provided by this Act and The Municipal and Assessment Acts, the sum of \$300 at least for every public school where a teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$300 at least, where a teacher or principal teacher is engaged for six months or longer; and the additional sum of at least \$200 for an assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$200 at least, where an assistant teacher is engaged for six months or longer.

(3) Where such assessed value is less than an average assessment of \$30,000 for each public school section in any township, the municipal council of such township shall levy and collect as aforesaid the sum of \$150 at least for every public school where a teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of said sum of \$150 at least where a teacher or principal teacher is engaged for six months or longer; and an additional sum of at least \$100 for every assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$100 at least, where such assistant teacher is engaged for six months or longer.

(4) The sums so levied and collected by the council of the township shall, after the expiration of the present calendar year, be applied exclusively to teachers' salaries.

(5) In addition to the sum provided by the township council towards each teacher's salary, the trustees of every rural school section shall, in the cases hereinafter mentioned, pay annually, after the expiration of the current calendar year, to the teacher, where there is only one, and to the principal teacher where there are more teachers than one, at least the sum hereinafter mentioned (subject only to a proportionate reduction in case the whole year's salary does not become due) that is to say:

- (a) \$200 where the assessed value of the taxable property of the public school supporters in the section is at least \$200,000;
- (b) \$150 where such assessed value is at least \$150,000 but less than \$200,000;
- (c) \$100 where such assessed value is at least \$100,000, but less than \$150,000;
- (d) \$50 where such assessed value is at least \$50,000, but less than \$100,000;
- (e) \$25 where such assessed value is at least \$30,000, but less than \$50,000;

And \$100 to every assistant teacher, whatever such assessed value is.

The said trustees in making their annual estimates and requisitions for school moneys to be levied and collected from the ratepayers, shall include whatever amount, considering their other sources of income, is necessary to provide for such payment or payments.

(10) All moneys hereby required to be levied and collected and applied to the salaries of teachers shall be paid to the treasurers of the respective public school boards from time to time as may be required by the school trustees.

The Public Schools Act of 1901 prescribes that the teacher's salary shall be paid quarterly. Unfortunately, it appears, this provision has sometimes been overlooked or ignored. The main difficulty in complying with the Act has been removed by subsection 10, above; for the obligation to borrow the necessary funds will no longer devolve on the Section School Board.

At its recent session the Legislature voted the sum of \$60,000 as a special grant to the rural schools of the organized counties. Such special grants, with the corresponding county grants (see subsection (1) above), and the usual general grant (the three grants for the year amounting to over \$240,000), will, after this year, be distributed, not on the average attendance as heretofore in the case of the ordinary legislative grant, but "on the basis of the salaries paid to the teachers, the character of the accommodations, and the value of the equipment, after providing a minimum grant for each such school, which is equipped

as required by the Regulations of the Education Department." [See Act of 1906 respecting the Department of Education, sec. 22, subsection (5).] For the distribution of these three grants for the present year, section 23 of the Education Department Act of 1906 makes special provision, and the apportionment of the general and special legislative grants is given in detail in the circulars which have just been issued by the Education Department.

No restriction has been made in the new Acts as regards the application of the general, special, and county grants, nor for the present year as regards the application of the additional township grants. As, however, the new mode of distribution of both the legislative grants as well as the county grants, comes into operation next year, the Minister desires to point out that it will be eminently prudent for every School Board to expend its extra income, during the coming half-year, on the improvement of the school accommodations and equipment. Suggestions and directions as to both of these subjects will, it is expected, be issued by the Education Department early next July.

As it is most important that the recent changes in the amended Acts and the regulations and instructions depending thereon, should be thoroughly understood, the Minister directs the Public School Inspector to modify his ordinary routine for the coming half-year so as to have time to discuss the changes with at least the chairman of each School Board and with the County Council and the Municipal Councils in his inspectorate.

CONTINUATION CLASSES.

In pursuance of the Government's policy to place the Continuation Classes on a better financial and educational basis, the sum of \$10,000 was voted by the Legislature for the scientific equipment and the libraries of these classes, making its total grant \$32,000. This year's special grant of \$10,000 will be distributed by the Education Department amongst the present four grades of schools on the same basis as was the \$20,000 grant last year for ordinary maintenance; and, in accordance with sec. 8, sub-sec. (6), of the Public Schools Act of 1901, county councils are required to provide forthwith at least the equivalent of this special grant also. The Minister, it should be added, intends to recommend the Legislature to continue to vote each year at least the amount of this additional grant, which will, however, be applied in future to ordinary maintenance.

A list of books suitable for Continuation Classes will be found in the High School Catalogue of Books for Reference Libraries of 1902, and especially in the Supplementary Catalogue of 1905. Both of these have already been distributed amongst the schools. The selection should include suitable works of reference in the departments taken up in the school classes. Lists of scientific apparatus, suitable for the present courses, will be sent shortly to each County Inspector for distribution amongst the Continuation Classes. The teacher of each school may himself suggest suitable purchases of books and apparatus; but it is most important that no purchases should be made with the special grant unless the selections have been thoroughly considered and have been approved of by the County Inspector. It will be part of the Inspector's duty to see that this special grant and the county equivalent have been fully and properly expended by the end of the current year, if he finds this to be practicable. But, for the sake of the schools, the equipment should, of course, be provided without unnecessary delay.

In order to bring the Continuation Classes more directly under the control of the Education Department, and to raise them to a condition of uniform efficiency, provision was made at the last session of the Legislature for the appointment of a special departmental Inspector. As soon as the schools re-open, after the coming holidays, this officer will begin his duties, inspecting all of grades A and B, and as many as may be convenient of grades C and D. It is not, however, intended that the Departmental Inspector shall supersede the County Inspector, to whose zeal the present number and efficiency of the Continuation Classes are largely due. The County Inspector will still visit these schools as heretofore; one of his visits, however, being paid, if possible, in company with the Departmental Inspector, who will notify him of his intended visit.

The following statutory amendments of the Public Schools Act affecting Continuation Classes also claim the attention of school officials and municipal councils:

Sec. 3 provides for the grouping of any number of Public and Separate Schools, not situated in a High School district. Such schools may, accordingly, be attended and maintained by both Public and Separate School supporters, as are the present High Schools.

Sec. 5 provides that, when two or more counties are united for municipal purposes, the council may apportion the amount to be levied, so that each county shall be liable only for the sums payable in respect of its Continuation Classes. Under this provision, one county may give greater aid to its Continuation Classes than the others of the union give to theirs.

Sec. 4 provides that the qualifications of the teachers shall be hereafter prescribed by the Regulations of the Educational Department. As soon as practicable the whole question of the organization and management of these schools will be taken into consideration. Until this is settled, the qualifications of the teachers shall be those prescribed under the Public Schools Act of 1901. [See section 8, subsection (5).]

OTHER CHANGES.

The additional sum of \$12,000 was also voted at the recent session of the Legislature for Poor Schools and for the general equipment of the Territorial (District) Schools, making a total grant for such schools of \$77,000. The share of the special grant of \$12,000 apportioned to the Territorial Schools by the Education Department will this year be distributed equally amongst them, and special consideration will be given the most needy of the Poor Schools.

Besides the changes dealt with in this circular, a number of other important amendments have been made to the Public Schools Act. Some of these deal with the confirmation of school sections (sec. 29), the expropriation of land for school purposes (sec. 38), and the remuneration of Public School Inspectors and the conditions under which they may be dismissed (secs. 47, 48, and 49). Copies of the new Act respecting the Education Department and the Act amending the Public Schools Act are now being distributed. To these, in their entirety, the Minister directs the attention of school officials and municipal councils.

A. H. U. COLQUHOUN,

Deputy Minister of Education.

DEPARTMENT OF EDUCATION,
May 28th, 1906.

Cir. 15

10,000, May, 1906.



CHANGES IN THE DEPARTMENT OF EDUCATION AND SCHOOLS ACTS.

Circular to School Officials and Municipal Councils.

Important changes, affecting both the Education Department and the Public School system, were made during the recent session of the Legislature. To some of these changes the Minister desires to direct the special attention of school officials and municipal councils.

THE DEPARTMENT OF EDUCATION.

Under the Act respecting the Department of Education, a Superintendent of Education has been appointed, and an Advisory Council will be elected next November. Subject to the Minister, the Acts, and the Regulations, the Superintendent will have the general supervision and direction of all branches of the Primary and Secondary School systems; and the Advisory Council, besides discharging the examination functions of the present Educational Council, will act as a consultative council to the Minister on such subjects as he may submit to it for consideration. Notwithstanding these provisions, all official correspondence, it should be noted, shall, as heretofore, be conducted through the Deputy Minister.

GENERAL IMPROVEMENT OF PUBLIC SCHOOLS.

After due consideration of the educational situation, which, from various causes, is now a critical one, the Government became convinced that it would be necessary, as the first step in the general improvement of the Public Schools, to provide without delay better trained teachers and to secure an increase in the salaries of the rural teachers in particular. These conclusions were approved of by the Legislature at its recent session; and, accordingly, a first grant was then made for the erection of additional Normal Schools to supersede nearly all the present Model Schools, and a scheme of minimum salaries was adopted, graded according to the section assessment.

Without a general improvement in salaries, it would be manifestly useless to require candidates for the teaching profession to take, as the scheme contemplates, a longer course of professional training. This improvement has, indeed, become imperative in view of the greater inducements now offered in other callings and the increasing yearly exodus from the ranks of the Ontario teachers.

Section 39 of the amending Public Schools Act of 1906 amends section 70 of the Act of 1901. The following are its main provisions, which, owing to their importance, are here given in full:

(1) The municipal council of every organized county shall levy and collect by an equal rate upon the taxable property of the whole county (not included in urban municipalities or annexed to any urban municipality for school purposes) according to the equalized assessments of the municipalities, in the manner provided by this Act and The Municipal and Assessment Acts, a sum which shall be at least the equivalent of all special grants made by the Legislative Assembly to the rural schools of the county, and such sum shall be payable to the trustees of the respective schools receiving such legislative special grants in the same proportions as the said special grants are apportioned.

(2) Where the assessed value of all the taxable property of the public school supporters in any township of an organized county is at least equal to an average assessment of \$30,000 for each public school section therein, the municipal council of such township shall levy and collect by assessment upon the taxable property of the public school supporters of the whole township in the manner provided by this Act and The Municipal and Assessment Acts, the sum of \$300 at least for every public school where a teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$300 at least, where a teacher or principal teacher is engaged for six months or longer; and the additional sum of at least \$200 for an assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$200 at least, where an assistant teacher is engaged for six months or longer.

(3) Where such assessed value is less than an average assessment of \$30,000 for each public school section in any township, the municipal council of such township shall levy and collect as aforesaid the sum of \$150 at least for every public school where a teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of said sum of \$150 at least where a teacher or principal teacher is engaged for six months or longer; and an additional sum of at least \$100 for every assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$100 at least, where such assistant teacher is engaged for six months or longer.

(4) The sums so levied and collected by the council of the township shall, after the expiration of the present calendar year, be applied exclusively to teachers' salaries.

(5) In addition to the sum provided by the township council towards each teacher's salary, the trustees of every rural school section shall, in the cases hereinafter mentioned, pay annually, after the expiration of the current calendar year, to the teacher, where there is only one, and to the principal teacher where there are more teachers than one, at least the sum hereinafter mentioned (subject only to a proportionate reduction in case the whole year's salary does not become due) that is to say:

- (a) \$200 where the assessed value of the taxable property of the public school supporters in the section is at least \$200,000;
- (b) \$150 where such assessed value is at least \$150,000 but less than \$200,000;
- (c) \$100 where such assessed value is at least \$100,000, but less than \$150,000;
- (d) \$50 where such assessed value is at least \$50,000, but less than \$100,000;
- (e) \$25 where such assessed value is at least \$30,000, but less than \$50,000;

And \$100 to every assistant teacher, whatever such assessed value is.

The said trustees in making their annual estimates and requisitions for school moneys to be levied and collected from the ratepayers, shall include whatever amount, considering their other sources of income, is necessary to provide for such payment or payments.

(10) All moneys hereby required to be levied and collected and applied to the salaries of teachers shall be paid to the treasurers of the respective public school boards from time to time as may be required by the school trustees.

The Public Schools Act of 1901 prescribes that the teacher's salary shall be paid quarterly. Unfortunately, it appears, this provision has sometimes been overlooked or ignored. The main difficulty in complying with the Act has been removed by subsection 10, above; for the obligation to borrow the necessary funds will no longer devolve on the Section School Board.

At its recent session the Legislature voted the sum of \$60,000 as a special grant to the rural schools of the organized counties. Such special grants, with the corresponding county grants (see subsection (1) above), and the usual general grant (the three grants for the year amounting to over \$240,000), will, after this year, be distributed, not on the average attendance as heretofore in the case of the ordinary legislative grant, but "on the basis of the salaries paid to the teachers, the character of the accommodations, and the value of the equipment, after providing a minimum grant for each such school, which is equipped

as required by the Regulations of the Education Department." [See Act of 1906 respecting the Department of Education, sec. 22, subsection (5).] For the distribution of these three grants for the present year, section 23 of the Education Department Act of 1906 makes special provision, and the apportionment of the general and special legislative grants is given in detail in the circulars which have just been issued by the Education Department.

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As it is most important that the recent changes in the amended Acts and the regulations and instructions depending thereon, should be thoroughly understood, the Minister directs the Public School Inspector to modify his ordinary routine for the coming half-year so as to have time to discuss the changes with at least the chairman of each School Board and with the County Council and the Municipal Councils in his inspectorate.

CONTINUATION CLASSES.

In pursuance of the Government's policy to place the Continuation Classes on a better financial and educational basis, the sum of \$10,000 was voted by the Legislature for the scientific equipment and the libraries of these classes, making its total grant \$32,000. This year's special grant of \$10,000 will be distributed by the Education Department amongst the present four grades of schools on the same basis as was the \$20,000 grant last year for ordinary maintenance; and, in accordance with sec. 8, sub-sec. (6), of the Public Schools Act of 1901, county councils are required to provide forthwith at least the equivalent of this special grant also. The Minister, it should be added, intends to recommend the Legislature to continue to vote each year at least the amount of this additional grant, which will, however, be applied in future to ordinary maintenance.

A list of books suitable for Continuation Classes will be found in the High School Catalogue of Books for Reference Libraries of 1902, and especially in the Supplementary Catalogue of 1905. Both of these have already been distributed amongst the schools. The selection should include suitable works of reference in the departments taken up in the school classes. Lists of scientific apparatus, suitable for the present courses, will be sent shortly to each County Inspector for distribution amongst the Continuation Classes. The teacher of each school may himself suggest suitable purchases of books and apparatus; but it is most important that no purchases should be made with this special grant unless the selections have been thoroughly considered and have been approved of by the County Inspector. It will be part of the Inspector's duty to see that this special grant and the county equivalent have been fully and properly expended by the end of the current year, if he finds this to be practicable. But, for the sake of the schools, the equipment should, of course, be provided without unnecessary delay.

In order to bring the Continuation Classes more directly under the control of the Education Department, and to raise them to a condition of uniform efficiency, provision was made at the last session of the Legislature for the appointment of a special departmental Inspector. As soon as the schools re-open, after the coming holidays, this officer will begin his duties, inspecting all of grades A and B, and as many as may be convenient of grades C and D. It is not, however, intended that the Departmental Inspector shall supersede the County Inspector, to whose zeal the present number and efficiency of the Continuation Classes are largely due. The County Inspector will still visit these schools as heretofore; one of his visits, however, being paid, if possible, in company with the Departmental Inspector, who will notify him of his intended visit.

The following statutory amendments of the Public Schools Act affecting Continuation Classes also claim the attention of school officials and municipal councils:

Sec. 3 provides for the grouping of any number of Public and Separate Schools, not situated in a High School district. Such schools may, accordingly, be attended and maintained by both Public and Separate School supporters, as are the present High Schools.

Sec. 5 provides that, when two or more counties are united for municipal purposes, the council may apportion the amount to be levied, so that each county shall be liable only for the sums payable in respect of its Continuation Classes. Under this provision, one county may give greater aid to its Continuation Classes than the others of the union give to theirs.

Sec. 4 provides that the qualifications of the teachers shall be hereafter prescribed by the Regulations of the Educational Department. As soon as practicable the whole question of the organization and management of these schools will be taken into consideration. Until this is settled, the qualifications of the teachers shall be those prescribed under the Public Schools Act of 1901. [See section 8, subsection (5).]

OTHER CHANGES.

The additional sum of \$12,000 was also voted at the recent session of the Legislature for Poor Schools and for the general equipment of the Territorial (District) Schools, making a total grant for such schools of \$77,000. The share of the special grant of \$12,000 apportioned to the Territorial Schools by the Education Department will this year be distributed equally amongst them, and special consideration will be given the most needy of the Poor Schools.

Besides the changes dealt with in this circular, a number of other important amendments have been made to the Public Schools Act. Some of these deal with the confirmation of school sections (sec. 29), the expropriation of land for school purposes (sec. 38), and the remuneration of Public School Inspectors and the conditions under which they may be dismissed (secs. 47, 48, and 49). Copies of the new Act respecting the Education Department and the Act amending the Public Schools Act are now being distributed. To these, in their entirety, the Minister directs the attention of school officials and municipal councils.

A. H. U. COLQUHOUN,

Deputy Minister of Education.

DEPARTMENT OF EDUCATION,
May 28th, 1906.



CHANGES IN THE HIGH AND PUBLIC SCHOOLS ACTS.

Circular to School Officials and Municipal Councils.

The following are the amendments made last Session to the High and the Public Schools Acts, which it is necessary for County Councils to consider in striking the rates for the present year.

CONTINUATION CLASSES.

Section 8 of the Public Schools Act has been amended by adding thereto the following as sub-section 7 :—

(7) Where the Board of Trustees of a union school section establishes continuation classes in the union school, or joins with one or more other Boards of Trustees in establishing such classes as hereinbefore provided, the Municipal Council of each municipality having the whole or part of its territory within the union school section shall levy and collect upon the taxable property of such union school section within its jurisdiction, its proper share of the expense of establishing and maintaining the said continuation classes according to the equalized assessment of each portion of the said union school section in the respective municipalities.

Under section 8, sub-section 6, of the Public Schools Act of 1901, amended by section 5 of the Amending Act of 1906 (or in the case of R. C. Separate Schools, Sec. 2, sub-sec. 6, of the Act of 1902, to amend the Separate Schools Act), the Municipal Council of the County shall pay, for the maintenance of Continuation Classes a sum equal to the Legislative Grant apportioned by the Minister of Education for such Classes, and any further sums the Municipal Council may deem expedient. In 1906 the Legislature voted \$32,000.00 for Continuation Classes. Last session it voted \$40,000.00 for the current year. As this Grant cannot be apportioned until after the close of the school year, the Minister is unable to state at present the exact total amount required from each County as the equivalent to its share of this sum. It would be well, however, for each County Council to increase proportionately its grant for the same purpose.

COUNTY AND TOWNSHIP RATES.

Subsections 1, 2, 3, 4, 5 and 6 of section 70 of the Public Schools Act, as enacted by section 39 of the Act passed in the 6th year of His Majesty's reign, Chaptered 53, have been repealed, thus rescinding the minimum salary provisions except as provided in (4) below. The following subsections have been substituted for the aforesaid subsections :—

70. (1) The Municipal Council of every organized county shall levy and collect by an equal rate upon the taxable property of the

whole county, (not included in urban municipalities or annexed to any urban municipality for school purposes) according to the equalized assessments of the municipalities in the manner provided by this Act and the *Municipal and Assessment Acts*, a sum which shall be equal to at least that portion of the legislative grant which is apportioned by the Minister of Education on the basis of the equipment and accommodations of the rural Public and Separate Schools of the county, and such sums shall be payable to the Trustees of the respective schools receiving such legislative grants in the same proportions as the said grants are apportioned.

(2) Where the assessed value according to the equalized assessments aforesaid, of all the taxable property of the Public School supporters in any township in an organized county, is at least equal to an average annual assessment of \$30,000 for each Public School section therein the Municipal Council of such township shall, each year, levy and collect by assessment upon the taxable property of the Public School supporters of the whole township (not included in urban municipalities or annexed to any urban municipality for school purposes) in the manner provided by this Act and the *Municipal and Assessment Acts*, the sum of \$300 at least for every Public School where the teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$300 at least where a teacher or principal teacher is engaged for six months or longer ; and the additional sum of at least \$200 for every assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$200 at least for every assistant teacher engaged for 6 months or longer.

(3) In every organized county where such assessed value, according to the equalized assessments aforesaid, is less than an average annual assessment of \$30,000 for each Public School section in any township, and in every organized township in the territorial or judicial districts, whatever its assessments may be, the Municipal Council of such township shall, each year, levy and collect as aforesaid the sum of \$150 at least for every Public School where a teacher or principal teacher is engaged for a whole year exclusive of vacations, and a proportionate amount of said sum of \$150 at least where a teacher or principal teacher is engaged for 6 months or longer ; and an additional sum of at least \$100 for every assistant teacher engaged for a whole year exclusive of vacations, and a proportionate amount of such sum of \$100 at least where such assistant teacher is engaged for 6 months or longer.

(4) The sums so levied and collected by the council of the township shall be applied exclusively to teachers' salaries.

The portion of the Legislative Grant which is apportioned by the Minister of Education on the basis of the equipment and accommodations of the rural Public and Separate Schools is \$60,000.00. Last year the Counties raised the equivalent of a special grant of \$60,000.00 to rural Public and Separate Schools. The amount thus raised by each County under the Act of 1906 will be about the amount required to be raised this year under the amended Act of 1907. (Section 70 (1) quoted above.)

COUNTY CLERK.

Section 73 of *The Public Schools Act* has been amended by adding thereto the following subsection :—

(2) It shall be the duty of the clerk of every county to furnish the Public School Inspector forthwith on demand with such school statistics in regard to assessments as the Minister of Education may direct.

PUBLIC SCHOOL INSPECTORS.

Subsection 3 of section 86 of the Public School Act as enacted by section 46 of the said Act, passed in the 6th year of His Majesty's reign, Chaptered 53, has been amended, adding at the end of the said subsection 3, the following paragraph :—

In any county in which any Public School Inspector has charge of less than 140 schools or departments with separate registers the appointment of an additional Inspector shall be subject to the approval of the Lieutenant-Governor in Council.

Subsection 8 of section 86 of *The Public Schools Act*, as enacted by section 47 of the said Act, passed in the 6th year of His Majesty's reign, has been amended by inserting before the word "postage" in the ninth line the word "printing."

MAINTENANCE.

Notwithstanding anything contained in section 34 of *The High Schools Act* and the amendments thereto, the liability of any municipality under subsections 6, 7 or 9 of the said section as amended shall be determined as follows :—

From the total cost of maintenance of the High School there shall be deducted the amount of the legislative grant,—the remainder shall be divided by a number representing the total number of days' attendance of all pupils at such High School during the year for which payment is to be made and the resulting amount shall be multiplied by the total number of days' attendance of pupils in respect of whom such municipality is liable, the percentage mentioned in the subsection under which payment is to be made shall then be determined, and from this amount the fees paid by such pupils shall be deducted, and the resulting amount shall be the amount payable by such municipality.

May, 1907.

Cir. 15c
2,500 July, 1909



The accompanying extracts from the Statutes are sent for the information of Inspectors, Municipal Clerks and other Officers so that the law regarding assessment returns and school census may be complied with in every respect.

A. H. U. COLQUHOUN,
Deputy Minister of Education.

Toronto, February, 1909

SECTIONS OF *THE PUBLIC SCHOOLS ACT* AS AMENDED IN 1907.

72. It shall be the duty of the clerk of every township :—

2. To give to the public school inspector when requested by him, a statement of the assessed value of each school section as shewn by the revised assessment roll for the year, and at the request of any board of trustees to furnish the board with a statement shewing the several parcels or lots of land composing the school section for which they are trustees, the assessment of each parcel or lot and the amount of taxes entered on the collector's roll against each parcel of such lands, and the population of each school section between the ages of five and sixteen years. The cost of preparing the latter statement shall be paid by the board of trustees applying for the same.

RETURN OF ANNUAL CENSUS.

73. (1) It shall be the duty of the clerk of every county to make a return to the Minister of Education showing the population of each minor municipality within the county, and of the clerk of every city and of every town separated from a county to make a return showing the population of such city or town, as shown by their respective assessment rolls for the previous year, said returns to be made on or before the first day of April in each year.

(2) It shall be the duty of the clerk of every county to furnish the Public School inspector forthwith on demand with such school statistics in regard to assessments as the Minister of Education may direct.

SECTIONS OF *THE ASSESSMENT ACT* AS AMENDED IN 1908.

29. (1) The assessors of every municipality shall enter in a book to be provided by the clerk of the municipality in the form set forth in Schedule "C" to this Act, the name, age and residence of every child between the ages of eight and fourteen years resident in the municipality, the name and residence of such child's parent or guardian, with an indication as to whether such parent or guardian is a Public School or Separate School supporter, and shall return the said book to the clerk of the municipality with the assessment roll for the use of the truant officer and others.

(2) It shall be the duty of the clerk of the municipality to send to the office of the Minister of Education as soon as he has received the said book, a statement showing the aggregate number of children between the ages of eight and fourteen entered by the assessors in the said book.

30. The assessors of every municipality shall make an annual census of all the children in the municipality between the ages of five and sixteen years and between the ages of five and twenty-one years. The clerk shall report such census to the public school inspector and to the secretary of the board of education or trustees. In the case of townships the clerk shall report to the inspector of the division and to the secretary of each school section.

SCHEDULE C.

(Section 29.)

Census of all children between the ages of eight and fourteen in the city, town, village or township (as the case may be) of

Name of Child.	Age.	Public or Separate School Supporter.	Parent or Guardian.	Residence.



DEPARTMENTAL REGULATIONS.

SUPERANNUATED TEACHERS' FUND.

84.—(1) In order to be entitled to any portion of the Legislative Appropriation for Superannuated Teachers, every Teacher of a High, Public or Separate School, and every Inspector, must have contributed \$4 annually to the Superannuation Fund during the whole time of his professional service, or have paid all arrears before 1st July, 1886.

(2) Should a subscriber neglect to pay his contribution before the 31st December in any year the payment to be made shall then be \$5.

(3) In the case of Inspectors, or Local Superintendents who are now Inspectors, services as an Inspector shall be considered equivalent to services as a Teacher.

(4) In the case of Teachers or Inspectors under sixty years of age proof of disability must be furnished annually to the Department. The retiring allowance shall be withdrawn whenever the disability ceases, and the recipient shall annually present himself to the Inspector, in order that he may report thereon to the Minister.

(5) Teachers or Inspectors, sixty years of age, are entitled to superannuation, provided the regulations aforementioned regarding payment and arrears have been complied with, without proof of disability. In all cases evidence of good moral character is required.

(6) Payments on account of superannuation commence with the year following that in which applications were approved by the Education Department.



COURSES FOR

Professional Certificates.

High and Continuation School,
First Class Public School, and
Public School Inspectors.

Faculties of Education at the Universities of Toronto, and Queen's
College, Kingston.

TORONTO:
Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1908.

PROFESSIONAL CERTIFICATES.

HIGH AND CONTINUATION SCHOOL, FIRST CLASS PUBLIC SCHOOL, AND PUBLIC SCHOOL INSPECTORS.

1. The Ontario Department of Education accepts the courses of the Faculties of Education in the Universities of Toronto and Queen's College, Kingston,* as follows :

COURSES OF STUDY.

(a) The GENERAL COURSE and the FIRST ADVANCED COURSE, as the professional courses for an INTERIM FIRST CLASS PUBLIC SCHOOL and an INTERIM HIGH SCHOOL ASSISTANT'S CERTIFICATE.

(b) The SECOND ADVANCED COURSE, as the professional course for an INTERIM HIGH SCHOOL ASSISTANT'S CERTIFICATE.

(c) The SPECIAL COURSES FOR SPECIALISTS as the professional courses for INTERIM SPECIALISTS' CERTIFICATES.

(d) The SPECIAL COURSE FOR PUBLIC SCHOOL INSPECTORS, as the professional course for a PUBLIC SCHOOL INSPECTOR'S CERTIFICATE.

TERMS OF ADMISSION.

2. A candidate for admission to a Faculty of Education shall submit the following to the Dean thereof :

(1) A certificate from a competent authority that he will be at least 18 years of age before the first of October. Beginning with the session of 1909-1910, no candidate will be admitted who is not at least 19 years of age before the first of October.

(2) A certificate from a clergyman or other competent authority that he is of good moral character.

(3) A certificate in detail from a physician that he is physically fit for the work of a teacher and especially that he is free from serious pulmonary affection and from serious defects in eyesight and hearing.

(4) One or other of the following :

(a) His certificate of Graduation in Arts from the Registrar of any University in the British Dominions.

(b) His Senior Teacher's Certificate.

(c) Until the session of 1910-1911, his certificate from the Registrar of the Department of Education that he has passed the July Examination for Entrance into the Faculty of Education.

* For details of the subjects, courses, and examinations, see the Calendars of the Universities of Toronto and Queen's College, Kingston, which will be sent on application to the Universities.

The Session of the Faculty opens on October 1st.

[After the session of 1910-1911, in addition to his certificate of having passed the July examination for Entrance into the Faculties of Education, he shall submit, endorsed thereon, the prescribed certificate from the Principal of an Approved School that he has completed satisfactorily the Lower School subjects of the High School prescribed for Entrance into the Faculties of Education. Failing this certificate he shall pass at the University in September an examination in the following subjects of the Lower School Course of the High Schools, with 40 per cent. in each examination paper and 60 per cent. of the aggregate of the marks :

Reading, Spelling, Writing, Book-keeping and Business papers, Art, Biology, Geography, English Grammar, and Arithmetic and Mensuration.]

GENERAL COURSE.

3. A *General Course* consists of three parts, as follows :

Part I.

1. The History of Education and Educational Systems, the Principles of Education, Psychology and General Method, School Management and School Law, and special Methods in the subjects of the Public School Course and the following subjects of the High School Course :

English with History and Geography, Mathematics, Latin, and one of the following groups :—

- (a) Biology, Physics, Chemistry, and Mineralogy;
- (b) French and German;
- (c) Greek and French;
- (d) Greek and German.

2. A review by the student, from the academic standpoint, of the subjects required for the High and the Public School Courses.

Part II.

A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work, and Household Science (for women) of the Public School Course, and the Reading and Physical Training of both the High and the Public School Courses.

Part III.

Observation and Practice Teaching in the Public and the High Schools of Toronto and Kingston, with Observation in ungraded rural schools.

FIRST ADVANCED COURSE.

4. The First Advanced Course trains for certificates as teachers in both Public and High Schols, and consists of three parts, as follows :

Part I.

(1) The History of Education and Educational Systems, the Principles of Education, Psychology and General Method, School Management and School Law, and special Methods in the subjects of the Public School Course, and the following subjects of the High School Course :

English with History and Geography, Mathematics, Latin, and one of the following groups:—

- (a) Biology, Physics, Chemistry, and Mineralogy;
- (b) French and German;
- (c) Greek and French;
- (d) Greek and German.

The instruction in the History of Education and Educational Systems, the Principles of Education, and Psychology and General Method in this sub-section will be of a more advanced character than that given in the General Course, and will assume a knowledge of Elementary Psychology and Ethics.

(2) A review by the student, from the academic standpoint, of the subjects required for the High and the Public School Courses.

Part II.

A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work and Domestic Science (for women), of the Public School course, and the Reading and Physical Training of both the High and the Public School Courses.

Part III.

Observation and Practice Teaching as defined in Part III. of the General Course.

SECOND ADVANCED COURSE.

5. The Second Advanced Course trains for certificates as teachers in High Schools only, and consists of three parts, as follows:

Part I.

(1) The History of Education and Educational Systems, the Principles of Education, Psychology and General Method, School Management and School Law, and Special Methods in the following subjects of the High School Courses:

English with History and Geography, Mathematics, Latin, and one of the following groups:—

- (a) Biology, Physics, Chemistry and Mineralogy;
- (b) French and German;
- (c) Greek and French;
- (d) Greek and German.

The instruction in the History of Education and Educational systems, the Principles of Education, and the Psychology and General Method in this sub-section will be of a more advanced character than that given in the General Course and will assume a knowledge of elementary Psychology and Ethics.

(2) A review by the student, from the academic standpoint, of the subjects required for the High School Courses.

Part II.

(1) A course of instruction, both academic and professional, in the Reading and Physical Training of the High School Course.

(2) A course of instruction in one of the academic departments for Specialists' certificates recognized by the Ontario Department of Education, and approved by the Faculty.

Part III.

Observation and Practice Teaching as defined in Part III of the General Course.

SPECIAL COURSES.

6. The Special Courses include :—

(1) (a) Courses for Specialists under the Regulations of the Ontario Department of Education;

(b) A course for Inspectors of Public Schools.

(2) (a) In both the General and the Advanced Courses, special training will be provided for candidates for certificates as Specialists.

(b) For a Public School Inspector's certificate there will be an examination in May, open to those who have fulfilled the conditions prescribed by the Ontario Department of Education for Public School Inspectors' Certificates. The subjects of the examination will be as follows :—

Modern Systems and Tendencies in Education; History of Public Education in Ontario; School Administration and Law; School Inspection and Supervision, including the Supervision of Instruction in all subjects of the Public School Course.

GENERAL REGULATIONS.

7. Students in attendance who are graduates in Arts before the beginning of the session, may take the General Course or one of the Advanced Courses. All other regular students, including graduates in Arts who are exempt from attendance, shall take the General Course.

8. Regular attendance throughout the session (Oct. 1st to May 31st) is compulsory, except for such students as are exempt from attendance under the Regulations of the Ontario Department of Education. A return of such attendance shall be made to the Minister of Education at the close of the session.

9. All students exempt from attendance who are duly registered in the Faculty and who pay the annual fee of \$15.00 (which shall not in this case include the fee for examination) may receive from the members of the Faculty such guidance in their courses as may reasonably be given to students not in attendance.

10. A student in the General or the First Advanced Course, may take in addition to the subjects of his course in the Faculty of Education, a course in a subject recognized by the Department of Education for academic certificates, but only with the consent of the Faculty of Education; and no such course shall be allowed to interfere with his regular course as prescribed in the Faculty of Education.

11. Candidates for Specialists' certificates under the Regulations of the Department of Education shall have had their academic standing approved by said Department before entering upon their special courses.

12. Subject to the approval of the Minister of Education, the Faculty of Education may make such modifications of the scheme of optional groups in Part I of any of the courses, as will suit the condition of candidates who had obtained their academic standing in courses other than those recognized in the Regulations of 1904.

13. The annual fee for the General or the Advanced Courses (with or without the course for Specialists) which shall include the library, gymnasium, and examination fees, shall be \$15. The fee for the examination in the General or Advanced Courses when the examination is not taken during the regular session or when it is taken by students not in attendance shall be \$15, or \$10 for each of Parts I and II if taken in parts. The fee for the Specialists' examination when not taken with the regular course shall be \$5 for each examination paper. The fee for the Inspectors' examination shall be \$15.

INTERIM CERTIFICATES.

14. Certificates of qualification may be awarded by the Department of Education on the results of the examinations of the Faculty of Education, as follows:

(1) INTERIM HIGH SCHOOL ASSISTANTS' AND INTERIM FIRST CLASS PUBLIC SCHOOL CERTIFICATES, one or both as the case may be:

(a) To students who have attended regularly, and who have obtained, in each of Parts I, II, and III of their courses, 40 per cent. of the marks for each subject and 60 per cent. of the aggregate of the marks for the term's work and final examinations.

(b) To students who are exempt from attendance and from the examination in Part III, and who have obtained in each of Parts I and II of their course 40 per cent. of the marks for each subject and 60 per cent. of the aggregate of marks.

(2) INTERIM SECOND CLASS PUBLIC SCHOOL CERTIFICATES, valid for one year, to students in the General or the First Advanced Course, who have attended regularly, and who, of the aggregate of the marks for the term's work and final examinations, have obtained 60 per cent. in Part III, 35 per cent. in each subject of Parts I and II, and 55 per cent. in each Part.

(3) INTERIM SPECIALISTS' CERTIFICATES:—

(a) To candidates in attendance who have fulfilled the conditions of one of the regular courses and who have obtained 60 per cent. of the marks assigned to the term's work and final examinations in the Special Course of their department.

(b) To candidates who are exempt from attendance and who have obtained 60 per cent. of the marks assigned the paper or papers in their department.

(4) PUBLIC SCHOOL INSPECTORS' CERTIFICATES :—

To candidates who have obtained 40 per cent. of the marks in each paper and 60 per cent. of the aggregate of marks.

15.—(1) An interim First Class Public School certificate shall entitle the holder, if under 21 years of age, to teach in a Public or Continuation School only; and, if over 21 years of age, to teach in a High School also.

(2) An interim High School Assistant's certificate shall entitle the holder, if over 21 years of age, to teach, as assistant, in a High School or a Continuation School.

(3) Interim certificates may be extended from year to year by the Minister of Education on the report of the Public, Separate, Continuation, or High School Inspector under whom the holder of the certificate has last taught.

EXAMINATIONS.

(a) *For candidates in attendance.*

16. The standing of the students in attendance in the General, an Advanced, or a Special Course shall be determined by the combined results of the term work and the May examinations. The term work shall consist of such exercises and tests as the Faculty may prescribe, and the maximum marks therefor in any subject shall be 40 per cent of the aggregate of the marks for that subject.

(b) *For candidates exempt from attendance.*

17.—(1) Teachers who have been granted only Interim High School Assistants' certificates may, without further attendance, obtain INTERIM FIRST CLASS PUBLIC SCHOOL CERTIFICATES, by passing at one examination, and with the usual percentages, in the special Public School subjects of the General Course, and by satisfying the Faculty by a practical test, of their ability to teach Public School classes.

(2) Teachers who hold First Class Public School or High School Assistants' certificates, interim or permanent, may without further attendance, obtain INTERIM SPECIALISTS' CERTIFICATES, provided they hold the necessary academic certificate and pass the professional examinations for such standing in the special courses prescribed by the Faculties of Education.

(3) Teachers who hold permanent Second Class certificates, with the academic standing prescribed for admission into the Faculties of Education, and who present certificates of at least five years' successful experience from the Public or Separate School Inspectors under whom they have taught during that period, may write at the examination for INTERIM FIRST CLASS PUBLIC SCHOOL CERTIFICATES, taking Parts I and II together or separately, but without taking the prescribed session or being required to pass in Part III. Such candidates will be granted Interim High School Assistants' Certificates also, on satisfying the Faculty, by a practical test, of their ability to teach High School classes.

(4) Candidates who have attended regularly a session in any course, and who, of the aggregate of the marks for the term's work and final examinations, have obtained 60 per cent. in Part III, 35 per cent in each subject of Parts I and II, and 55 per cent. in each Part, may write at the examination for INTERIM FIRST CLASS PUBLIC SCHOOL and HIGH SCHOOL ASSISTANTS' CERTIFICATES, taking Parts I and II together, but without taking the session over again or being required to pass again in Part III.

PERMANENT CERTIFICATES.

17.—(1) After at least two years' successful experience as a teacher, the holder of an interim certificate shall, on the report of the last Inspector concerned, be entitled to a permanent certificate as a First Class Public School teacher or as a High School Assistant, ordinary or specialist, according to the class of school in which the holder of the certificate has taught, provided, however, that the holder of the interim certificate is then 21 years of age.

(2) A Graduate in Arts in any University in the British Dominions, who holds a High School Assistant's certificate, and who, as shown by the report of the High School Inspector, has taught successfully at least three years (two of which were spent in a High School or in a Continuation School with at least two teachers) shall be entitled to a certificate as Principal of a High School or Collegiate Institute or of a Continuation School with at least two teachers.

EDUCATION DEPARTMENT,

September, 1908.

FOR CONSIDERATION

Proposed Course

IN

Art

FOR

High and Continuation Schools



TORONTO :

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1908

Circular No. 17.
2,000—Oct. 1908.

WARWICK BROS & RUTTER, Limited, Printers,
TORONTO.

Courses in Art for High and Continuation Schools.

PREFATORY MEMORANDUM.

In the following revised course in Art for the High and Continuation Schools, the Department of Education seeks to correct defects which experience has shown to exist in the present course. It is now placed in the hands of the teachers of Art in the Province for consideration until the close of next half year. With the consent of the Principal, Art teachers may, however, follow it for the present session. The course requires about three of the ordinary school periods the first year, and two the second, with supplementary work by the pupils both years.

LOWER SCHOOL.

A two years' course.

I. *Representation.*

- (1) The use of the pencil.
- (2) The drawing of type solids in light and shade.
- (3) The principles of freehand perspective and their application.
- (4) The laws of composition.
- (5) The study of colour. The solar spectrum; the six colours : red, orange, yellow, green, blue, violet, (R. O. Y. G. B. V.); intermediate hues; neutralization of a colour by its complement and by black or grey; the mixing of pigmentary colours to produce any desired tone. The nine values : White, high light, light, low light, middle, high dark, dark, low dark, black. Harmonies of colour.
- (6) The use of the brush and water-colours.
- (7) The drawing and painting of common objects, and of specimens from nature, such as fruits, flowers, leaves, sprays and trees, birds and other animals.
- (8) Pose drawing; drawing from casts.
- (9) The illustration in line, silhouette, neutral values, and colour, of stories and school compositions; imaginative sketches.
- (10) The following are optional : The use of the mediums : charcoal, crayon, monochrome, and pen and ink; the drawing and painting of simple landscapes from nature; the mounting of drawings.

NOTE.—The Public School course provides for the use of some of the optional mediums. Where at all practicable, all the mediums should be used.

2. *Ornamental Design.*

- (1) Principles of design.
- (2) Geometric forms and their application.
- (3) Nature as a source of design; conventionalization of natural forms.
- (4) The designing in neutral values and in colour, of surface patterns suitable for linoleums, oil-cloth, tile, wall paper, book covers, calendars, etc.
- (5) Lettering.

3. *Constructive Drawing.*

- (1) The use of instruments.
- (2) Simple geometrical problems.
- (3) The reading, making and lettering of simple working drawings.

MIDDLE SCHOOL.

A one year's course.

The Middle School course is a continuation of the Lower School course with the addition of the following :

1. *Representation.*

- (1) Use of the mediums: charcoal, crayon, pencil, water-colour, monochrome, and pen and ink.
- (2) The drawing and painting of landscapes from nature.
- (3) The mounting of drawings.
- (4) A few typical problems in parallel and angular perspective.

2. *Ornamental Design.*

The study and application of Historic Ornament.

3. *Constructive Drawing.*

Simple machine drawings and working drawings suitable for local industries.

4. *Architectural Drawing.*

- (1) The reading, making, and lettering of the plans, elevations, and simple details of ordinary dwellings.
- (2) A study of the Historic styles of Architecture.

NOTE.—(1) In connection with the study of technique, the facsimiles of the works of great artists may occasionally be copied (see Prang's Text Book of Art Education, No. 7, p. 2).

NOTE.—(2) The Middle School course is optional.

BOOKS OF REFERENCE.

Every teacher of Art should himself possess :

Prang's Text Books of Art Education (seven books now ready)—\$2.70. The Geo. M. Hendry Co., Toronto. (Canadian agents.)

Prang's Art Education for High Schools,—\$1.25. The Geo. M. Hendry Co., Toronto.

The following drawing books will also be found very suggestive to the teacher :

Prang's Drawing Course.—Eight numbers, \$1.85. The George M. Hendry Co., Toronto.

Applied Arts Drawing Books—Atkinson, Mentzner and Grover, Chicago and Boston.

These drawing books have been prepared for the third to the eighth year of the American Grammar (our Public) Schools and will, when completed, consist of twelve numbers. Those covering the first half of each year's work are ready (total cost 80 cents); the remaining six will be completed this year.

The Parallel Course Drawing Books—D. C. Heath and Co., Chicago and Boston.

In this series, also for the American Grammar Schools, the lessons are planned to be executed with a pencil. Parallel courses in pencil and brush drawing with ink and with water colours are also supplied. Set of four numbers, 60 cents.

How to Draw—Henry Warren Poor, Boston Normal School, Boston, Mass.

A set of envelopes (25 cents each) containing plates, as follows :

Pencil sketching from nature, Elements of Design, Freehand Perspective, Trees in Pencil, Animal Drawing, Historic Ornament, Pose-Drawing, 9 plates each. Units of Design (derived from wild flowers conventionalized, idealized and natural), 12 plates; Freehand Alphabets, 14 plates.

ART MODELS.

NOTE.—Adequate provision of type solids, models of common objects, ceramics, and plaster casts is indispensable.

1. *Type solids* made of wood and painted white as follows :

- | | |
|--|--|
| *Cube, 4 inches face, solid. | *Right-angled Triangular Prism, 4 x 5 5-8 x 8 inches. |
| Cube, 4 inches face, incised faces. | |
| Cube, 4 inches face, quartered diagonally. | *Equilateral Triangular Prism, 4 x 8 inches. |
| *Sphere, 4 inches diameter, solid. | Pentagonal Prism, 4 x 8 inches. |
| Sphere, 4 inches diameter, halved and quartered. | Hexagonal Prism, 4 x 8 inches. |
| *Hemisphere, 4 inches diameter. | Hexagonal Pyramid, 4 x 8 inches. |
| *Cylinder, 4 x 8 inches solid. | Octagonal Prism, 4 x 8 inches. |
| Cylinder, 4 x 8 inches, truncated. | Circular Plinth, 2 x 6 inches. |
| *Cone, 4 x 8 inches, solid. | *Flight of Three Steps, 8 inches long, 2 inches tread, 1 2-3 inches riser. |
| Cone, 4 x 8 inches, truncated. | *Cross, 2 x 6 inches. |
| *Square Prism, 4 x 8 inches. | Chimney Model, 4 x 8 inches, divided and dowelled. |
| Square Prism, 4 x 8 inches, divided diagonally. | Frame, 12 inches square, mortised. |
| Square Plinth, 2 x 6 inches. | *Vase, 8 x 12 inches. |
| *Oblong Block, 4 x 3 x 8 inches. | *Ovoid, 4 x 6 inches. |
| *Square Pyramid, 4 x 8 inches. | *Ellipsoid, 4 x 6 inches. |
| Square Pyramid, 4 x 8 inches, truncated. | |

NOTE.—The models marked with an asterisk are indispensable. Where the amount spent on Art models is \$50, about \$10 should be spent on type solids. Care should be taken not to over emphasize their value in the course.

2. *Common objects* in wood, metal or crockery ; fruits, flowers and vegetables, in season (or models thereof in clay); mounted birds and other animals.

3. *Ceramics* ; Jardinieres, pots, kettles, drinking-glasses, pitchers cups, vases, candlesticks, etc.

NOTE.—The ceramics should be chosen, not only for their individual beauty but for their form value in grouping and their colour value in a general scheme of colour harmony.

4. *Plaster casts* ; Plaques, busts, figures, groups of figures, and historic ornament.

The following from Caproni's catalogue are suggested as inexpensive lists of casts :

I.

Miscellaneous.—Venus de Milo (Louvre), Dying Gladiator ; Cupid Heads, (Giovanni da Bologna).
Busts.—Beethoven, Shakespeare, Socrates, Julius Cæsar (British Museum).
Animal.—Lion attacking Fawn, Lion crouching (Bonheur), Goose (Mene).
Architectural.—Panels from the Alhambra.

II.

Miscellaneous.—Augustus Cæsar (Vatican Museum), Wrestlers (Uffizi Gallery), Michael Angelo in Youth, Lorenzo de Medici (Michel Angelo).
Busts.—Sappho (Naples Museum), Cicero, Infant Christ (Settignano), Wagner, Longfellow.
Animal.—Lion of Lucerne (Thorwaldsen), Dog (Mene), Rabbit crouching (Fremiet).
Architectural.—Pedestal Column (Greek or Byzantine).

III.

Miscellaneous.—Moses (Michel Angelo), Discobolus of Myron, Meditation (Little Cherub).
Busts.—Froebel, Head of Venus de Milo, Seneca, Mozart, Columbus.
Animal.—Elephant walking, Lion seated, Dog (Pointer).
Relief.—Medallions : Morning, Night (Thorwaldsen).
Architectural.—Columns from Roman Forum.

IV.

Miscellaneous.—Minerva Giustiniani (Vatican Museum), Monk (seated), Lorenzo de Medici (Michael Angelo).
Busts.—Dante, Scott or Dickens, Napoleon Bonaparte, Christ (Thorwaldsen), Minerva Giustiniani.
Reliefs.—Lion's head (Donatello), Cupids from tomb of Henry IV.
Panel.—Homer and Nymphs.
Animal.—Elephant running, Lion (Canova).

5. *Objects or parts of objects typical of local manufactures:* for example : Woodenware, parts of machines, samples of fabrics, wall paper, etc.

6. *Unique objects*, suitable for decorative purposes : Chinese lanterns and parasols, objects of Indian manufacture, ancient arms, etc.

NOTE.—Carbon reproductions, etchings, and engravings of famous buildings, landscapes, and figures should also be provided, to exemplify the laws of composition and to give the pupils some knowledge of the work of the great artists. These should be provided primarily as school decorations ; they are not to be counted as Art Models.

In schools unable to purchase an adequate supply of the more expensive pictures, the Perry Pictures, very cheap reproductions, (*The Perry Picture Co.*, Malden, Mass.) may be used to supplement. When, also, Schools become acquainted with the masterpieces in this economical way, they will be better able to decide which of the more expensive reproductions to purchase.

NOTE 2.—Under tariff item 696 maps, photographic reproductions, casts, etchings, and lithographic prints or charts are specified as free, when specially imported in good faith by order of any College, Academy, School or Seminary of learning in Canada, for use to demonstrate or to instruct students and not for sale.

DEALERS IN ART MODELS.

Ontario dealers will send circulars to the Schools, containing lists of models under the preceding heads.

Ceramics may also be obtained from :

The Prang Educational Company, Boston, Chicago and New York.
The Geo. M. Hendry Co., Toronto, (Canadian Agents).

Plaster casts from the following :

P. P. Caproni & Brother, 1914-1920 Washington Street, Boston, Mass.

The special catalogue for Schools of this firm contains a list of Plaster Cast Reproductions from Antique, Mediæval, and Modern Sculpture. The firm allows 25 per cent. off catalogue prices, with no charge for packing, f.o.b. Boston.

C. Hennecke Co., Chicago and Milwaukee.

The prices in this firm's catalogue are subject to a special discount to Schools.

NOTE.—The catalogues of both the preceding firms are well worth a place in the School library. Selections therefrom should be made according to the financial ability of School Boards.

LEGISLATIVE GRANTS.

To encourage the study of Art, which has so far received inadequate attention in the schools, the Department of Education will make an annual grant, beginning with the Session of 1909-1910, of \$25.00 to the High or Continuation School Board, to be spent in special Art equipment, and of \$75.00 to the teacher of the Middle School Art Course, as in addition to his regular salary, on the following conditions:

1. The teacher shall hold a certificate as Specialist in Art from the Department of Education.

2. The course shall consist of at least two of the four subjects prescribed for the Middle School Art Course.

3. The course shall extend over at least one year and the provision therefor in the time-table shall be at least three periods a week of one hour each.

4. The class shall consist of at least six members in regular attendance who have already completed satisfactorily the Lower School Art course.

5. The Inspector's report of the equipment, organization, teaching, and the pupil's work shall be favorable.

Graduation Diplomas
Entrance Examinations
into the Faculties of Education
and
The Normal and Model Schools
Examining Boards

Regulations approved, October, 1907.



TORONTO :

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1908.

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TORONTO.

PUBLIC SCHOOL, CONTINUATION CLASS, AND HIGH SCHOOL GRADUATION DIPLOMAS.

(Regulation 29 and the note to Regulation 43 (2) are hereby rescinded and the following substituted therefor.)

1.—(1) (a) Graduation Diplomas, signed by the Public School Inspector and the Principal of the school, may be awarded to pupils who have completed the Public School Fifth Class course, under such conditions as to class records, examining boards, and expenses, as may be arranged between the Public School Inspector and any Board or Boards of Public School Trustees or the County Council concerned. The Diplomas shall show the subjects of the course taken.

(b) On the requisition of the Public School Inspector, the papers prepared for the Model School Entrance Examination, based upon the Lower School course of the High Schools, will, if desired, under the arrangement provided for in (a) above, be supplied by the Education Department, free of cost, at such centres and under such Presiding Officers as may be approved by the Minister of Education. All the other expenses of the examination than those of said examination papers shall be met as may be arranged under (a) above.

(c) The subjects for Graduation Diplomas shall be at least the following subjects of the Fifth Form course of the Public Schools, with such additional subjects of the same course as may be selected under (a) above :

Reading, Literature, Grammar, Composition, Spelling, British and Canadian History, Geography, Writing, Arithmetic and Mensuration, and Elementary Science (Botany, Zoology, and Physics).

(d) The Board of Examiners for High School Entrance may accept such Graduation Diplomas for admission to a High School; but such Diplomas shall not qualify for admission to a Model School.

(2) Graduation Diplomas, signed by the Chairman of the Board and the Principal of the school, may be awarded by High School or Continuation Class Boards on the completion of the High School courses, under such conditions as may be arranged between the Board of Trustees and the Principal of the school.

EXAMINATIONS FOR ENTRANCE INTO THE PROFESSIONAL SCHOOLS.

EXPLANATORY MEMO.

In the reorganized scheme of professional training there will be two main classes of training schools; the Normal Schools for the preparation of Second Class Public School teachers, and the Faculties of Education for the preparation of High School Assistants and First Class Public School teachers.

In addition to these, a few Model Schools of a new type, conveniently situated and efficiently organized, will be established for the preparation of Third Class teachers for school sections of the Districts and Counties

whose financial and other conditions may prevent them from securing a higher grade of teacher. The new Third Class certificates will correspond to the present professional District certificates, and the Model School Entrance Examinations to the Primary of 1892-1898. In 1908 this Entrance Examination will be that prescribed in Regulation 3 below; and, until further announcement by the Minister of Education, this examination will be held only in such Counties and Districts and the professional certificates based thereon shall be valid only for such schools, as each County Board may designate and as the Minister of Education may approve. [See Reg. 48, (1) and (2), of 1904.]

The three classes, of reorganized training schools will differ in some important respects from those they will displace. In particular, the Normal Schools will provide a complete course of academic (non-professional) as well as professional training. As far as is practicable, the Faculties of Education and the Model Schools will make the same provision. In addition, the class examinations and the final and other written examinations will test both the scholarship and the professional competency of those who intend to become teachers.

So far as the following changes affect the High Schools and the Continuation Classes, they are intended to reduce the pressure of the Departmental Examinations in the Lower and Middle Schools of the High Schools and Continuation Classes, and, as a result of such reduction, to give the teacher greater freedom in his work and to enable him to give more and better attention to subjects of practical and vital importance which have suffered under the system hitherto in operation.

(Regulations 43-50 are hereby rescinded and the following substituted therefor.)

GENERAL.

2.—(1) Written examinations, as defined below, for entrance into the Normal Schools and the Faculties of Education, will be held by the Education Department, in July of each year, subject to the conditions hereinafter contained, at each High School and Collegiate Institute, and at such other centres as may be approved by the Minister of Education. Written examinations will also be held for entrance into the Model Schools at the close of the school year at such centres as the Minister of Education may select.

(2) (a) Candidates intending to write at any of these examinations shall make application to the Public School Inspector before the 24th of May on an official form to be obtained from him.

(b) This official form of application shall include a certificate to be signed by the Principal of the school in which the candidate has completed his course that he has read carefully during the preceding year at least four enumerated suitable works in English Literature (both Prose and Poetry) in addition to those prescribed for the examination, and that he has taken up practically the course in Science. Without this certificate or other similar evidence satisfactory to the Public School Inspector, the candidate shall not be admitted to the examination.

MODEL SCHOOL ENTRANCE EXAMINATION.

3.—(1) The subjects of examination for entrance into the Model Schools shall be those of the Lower School of the High Schools as follows :

Book-keeping and Business Papers, Art, Elementary Science, English Literature, Geography, Spelling, English Composition, Writing, English Grammar, History (British and Canadian), Arithmetic and Mensuration, Algebra and Geometry.

(2) The Writing shall be judged from the Composition answer papers.

(3) The texts for the examination in English Literature will be prescribed by the Education Department from year to year. The Geometry for this examination shall consist of the practical course prescribed for the Lower School of the Higher Schools, and of the propositions in Euclid as prescribed for District certificates in Appendix C. The Elementary Science for this examination shall consist of the Botany, Zoology, Physics and Chemistry prescribed for the Lower School under the Regulations of 1904.

REQUIREMENTS FOR ENTRANCE INTO THE NORMAL SCHOOLS.

Examination in July.

4.—(1) The obligatory subjects of examination for entrance into the Normal Schools shall be the following subjects of the Middle School course of the High Schools as follows :

English Composition, English Literature, History (Ancient, British, and Canadian), Algebra, Geometry, Physics, and Chemistry.

(2) The courses in Physics and Chemistry for this examination shall include those now prescribed for the Lower School, as well as those prescribed for the Middle School.

(3) Candidates for entrance into the Normal Schools who take also the papers in the Middle School course in Latin (the pass matriculation course) at the July Departmental examinations of the same year, and who make at least 34 per cent. on each of such Latin papers and 50 per cent. of the aggregate of the marks assigned to both papers, shall have the marks so obtained counted as part of the 60 per cent. required on the aggregate of the obligatory subjects.

REQUIREMENTS FOR ENTRANCE INTO THE FACULTIES OF EDUCATION.

Examination in July.

5. Except as provided below, the subjects of the Departmental examination for entrance into the Faculties of Education shall be those prescribed for the Upper School of the High Schools, and the examinations may be taken as follows :

(1) At one time or in two parts at different times, as follows :

Part I.—English Composition and Rhetoric, English Literature, Mediæval History, Algebra, Geometry, Trigonometry, and Physics.

Part II.—History (Modern and British), Biology, Latin, with Chemistry and Mineralogy, *or* French and German, *or* Greek and German, *or* Greek and French.

(2) In four parts at different times as follows, provided always that the candidates take at least three of the four parts while actually engaged in teaching, and that they pass a practical examination in addition to the examination in the papers in Biology, Chemistry, and Mineralogy:

Part I.—English Composition and Rhetoric, Algebra, Geometry;

Part II.—English Literature, Mediæval History, Trigonometry;

Part III.—Modern and British History, Latin, Physics;

Part IV.—Biology, with Chemistry and Mineralogy, *or* French and German, *or* Greek and German, *or* Greek and French.

Candidates who take at least three of the four parts while actually engaged in teaching and who have failed in one subject at an examination in one of the parts, but who have made 40 per cent. of the marks on each of the two other subjects and 60 per cent. of the total on said two subjects, may carry over to the examination in a part subsequently taken, the examination on the subject in which they have failed.

Candidates who take at least three of the four parts while actually engaged in teaching and who obtained Junior Teachers' standing not later than 1900, may substitute for the course now prescribed in Latin for entrance into the Faculties of Education the special courses in English Literature and the History of the English Language and Literature prescribed by the Education Department for those who qualify under this Regulation.

(For special provisions for the examination of 1908, see Circular 50).

Additional Requirements for Entrance into the Faculties of Education and the Normal Schools.

6.—(1) In addition to the foregoing Departmental examination, a candidate for admission to a Faculty of Education or a Normal School shall pass at the University or the Normal School, in September, immediately before the session opens, an examination in the following subjects of the Lower School of the High Schools, unless he holds a certificate from the Principal of an approved High School or Continuation Class that he has completed satisfactorily the courses in said subjects:

Reading, Writing, Spelling, Book-keeping and Business Papers, Art, Biology, Geography, English Grammar, and Arithmetic and Mensuration.

(2) The Biology for this examination shall consist of the Botany and Zoology prescribed for the Lower School under the Regulations of 1904.

APPROVED HIGH SCHOOLS AND CONTINUATION CLASSES.

7. An approved High School or Continuation Class shall be one which fulfils the following conditions.

(1) The Departmental Inspector concerned shall certify as follows to the Minister of Education and to the Dean of each Faculty of Education and the Principal of each Normal School:

(a) That the provision for teaching the Lower School subjects enumerated in Regulation 6 above is adequate and satisfactory. For the purposes of this certificate, Continuation Classes shall be under the same Regulations as to equipment and the programme and time-table of studies as are the High Schools. (See Reg. 40 (1) of 1904, and Reg. 40 (2) as amended below.)

(b) That the pupils' work in the courses prescribed in Regulation 6 above is satisfactory. For the purposes of this certificate, the Inspector concerned shall examine the classes as he may deem it expedient, and the pupils' work since last inspection, in Book-keeping and Business Papers, and Art, and their note-books in Science, which work and note-books the Principal concerned will preserve from inspection to inspection, as the Inspector concerned may direct.

(2) The preparation of the pupils, as evidenced by their work throughout the session, shall have been satisfactory to the Dean of the Faculty of Education and the Principal of the Normal School. In the case of schools in which the preparation has not been satisfactory, the Dean or the Principal shall report the facts to the Minister of Education and to the Inspector concerned.

EXAMINATION PAPERS AND STANDARDS.

8.—(1) (a) One examination paper shall be set in each subject except in the case of Latin, Greek, French, German, and Biology, in each of which subjects there shall be two papers.

(b) The papers set for admission to the Faculties of Education and the Normal Schools shall be different from those set for University matriculation. Optional questions may be given in a paper at the discretion of the Board of Examiners. Candidates may substitute for one or more of the papers those set in a department for Honour Matriculation in the same or more extensive course.

(c) At the examinations in English Composition an essay or a letter or both shall be required, to which special importance shall be attached. Questions in Rhetoric may also be set at the examination for entrance into the Faculties of Education; but no candidate shall be passed who does not satisfy the examiners in Composition.

(d) In addition to passages from the prescribed authors, sight passages shall also be set at the examinations in English Literature, Greek, Latin, French, and German.

(2) (a) Candidates will be required to make 60 per cent. of the aggregate marks of the papers on the subjects prescribed for the examinations, as well as 40 per cent. on each paper. Seventy-five per cent. of the aggregate will be required for Honours. Each examination paper shall be valued at 100.

(b) If, after all the answer papers have been read, any examination paper should be found by the Board of Examiners to be easier or more difficult than required, the minimum on the paper shall be correspondingly raised or lowered, and the total number of marks correspondingly increased or diminished.

(c) At all the examinations for entrance into the professional schools, a confidential report, signed by all the members of the staff concerned, as to the standing of their candidates, will be taken into account in settling the results. Only the names of the candidates who, in the opinion of the staff, have completed satisfactorily the courses for the examination shall be included in this confidential report.

(d) Each candidate who makes the required aggregate may be awarded a certificate, even though he should fail to obtain the minimum in a subject, provided he was regarded as fit to pass in that subject by the staff, as shown from the confidential report sent to the Department before the examinations.

(3) (a) A candidate who has been duly admitted to, but who has failed at the examination for entrance into the Faculties of Education may on application to the Minister of Education be granted a Normal School Entrance Certificate, provided he has obtained 40 per cent. of the aggregate of the marks for each part and 25 per cent. of the marks for each paper therefor.

(b) A candidate who has been duly admitted to, and has failed at the examination for entrance into the Normal Schools or for entrance into the Faculties of Education, but who has obtained a standing satisfactory to the Minister of Education, may be granted a Model School Entrance Certificate.

(c) Reg. 43 (6), which provides that the standing of the third and fourth year in Arts, after a regular course in any University in the British Dominions, will be accepted in lieu of Junior and Senior standing respectively, shall remain in force only until July, 1908.

EXAMINING BOARDS.

9. The Boards of Examiners for admission to the professional schools shall hereafter be selected as follows: For the Model Schools, from the staffs of the Model Schools; for the Normal Schools, from the staffs of the Normal Schools; and, for the Faculties of Education, from the staffs of said Faculties and of the Normal Schools; with, in the case of each Board, one or more of the Inspectors of Public and Separate Schools, Continuation Classes, and High Schools.

UNIVERSITY MATRICULATION: PRELIMINARY EXAMINATIONS OF LEARNED SOCIETIES.

10. The University Matriculation Examinations will be conducted by the Education Department as heretofore or as may be hereafter arranged between the Education Department and the University of Toronto, and the Learned Societies will have, as heretofore, the privilege of selecting the papers—University or Departmental—that will meet the requirements of their preliminary examinations. The results of such examinations will be communicated also as heretofore, to such bodies by the Education Department.

ADDITIONAL AMENDMENTS.

Reg. 39 (5): To this Regulation the following is added:

The Elementary Science of this course shall consist of the Botany and Zoology prescribed under the Regulations of 1904. The Physics and Chemistry shall be optional for the General Course.

Reg. 39 (8) and (9) are hereby rescinded, and the following is substituted therefor:

(8) A subject prescribed for one school division may be reviewed or continued in a higher division, as the Principal may deem expedient.

Reg. 40 (2) is hereby rescinded, and the following is substituted therefor:

(a) For Biology, a lesson, in each year of the Lower School, of thirty minutes every day during the months of September and October and from the beginning of April to the end of June; or the equivalent thereof.

(b) For Physics and Chemistry, a lesson, in each year of the Lower School, of thirty minutes every day, or the equivalent thereof, during the rest of the school year.

The provision for special Middle School courses in Arithmetic and English Grammar on pages 79-80 of the Regulations of 1904 is hereby rescinded.

SCHEDULE A.

(Regulation 2 (2) (b) above.)

FORM OF CERTIFICATE.

I, 190...
 Principal of the High School (or
 Continuation Class) at, in the County of,
 do hereby certify that, to the best of my knowledge and belief,
 a candidate for entrance into
 has read carefully during the past year, the following works in English
 Literature in addition to those prescribed for the examination:.....

 and that he has taken
 up practically the following courses in Science:.....

To the Public School Inspector,

Principal.

SCHEDULE B.

(Regulation 6 (1) above.)

FORM OF CERTIFICATE.

I, 190...
 Principal of the High School (or
 Continuation Class) at, in the County of,
 an "Approved School" under the Regulations of the Education Depart-
 ment, do hereby certify that.....attended

the above school from to, and that
 has completed satisfactorily the Lower School courses in:

Reading, Writing, Spelling, Business Papers and Book-keeping, Art,
 Biology, Geography, English Grammar, and Arithmetic and Mensuration.

.....
 Principal.

To the Dean of the Faculty of Education
 (or the Principal of the Normal School)
 at.....

January, 1908.



DEPARTMENTAL EXAMINATIONS

Admission to Faculties of Education, Normal and Model Schools.

EXAMINERS.

1. (1) Except when necessary for special subjects the Examiners-in-chief for admission to the professional schools shall be selected as follows :

For the Model Schools, from the staffs of the Model Schools ; for the Normal Schools, from the staffs of the Normal Schools ; and, for the Faculties of Education, from the staffs of the said Faculties and of the Normal Schools ; with, in the case of each Board, one or more of the Inspectors of Public and Separate Schools, Continuation Schools and High Schools.

(2) The Examiners-in-chief for any examination shall act as a Board of Examiners for that examination and shall be jointly responsible for the preparation of all the questions papers and the determining of the results.

ASSOCIATE EXAMINERS.

2. (1) The Associate Examiners to read and value the answer-papers of candidates for admission into the Faculties of Education and the Normal Schools shall be graduates of a British University or Specialists according to the regulations of the Department of Education, who are actually engaged in teaching, and who hold permanent High School certificates.

(2) No Associate Examiner for the above examinations will be appointed to read the answer-papers in a subject which he is not actually engaged in teaching.

(3) The Associate Examiners to read the answer-papers of candidates for admission to the Model Schools shall be holders of Permanent First-Class certificates, who are actually engaged in teaching in Model Schools, Continuation Schools, or Fifth classes.

3. Except for special reasons no Examiner or Associate Examiner shall be appointed for more than three consecutive years.

EXAMINATION PAPERS.

4. (1) One examination paper shall be set in each subject except in the case of Latin, Greek, French, German, and Biology, in each of which subjects there shall be two papers.

(2) The papers set for admission to the Faculties of Education and the Normal Schools shall be different from those set for University Matriculation. Optional questions may be given in a paper at the discretion of

the Board of Examiners. Candidates for admission to the Faculties of Education may substitute for one or more of the papers those set in a department for Honour Matriculation in the same or a more extensive course.

(3) At the examinations in English Composition, an essay or a letter or both shall be required, to which special importance shall be attached. Questions in Rhetoric may also be set at the examination for Entrance into the Faculties of Education ; but no candidate shall be passed who does not satisfy the Examiners in Composition.

(4) In addition to passages from the prescribed authors, sight passages shall also be set at the examinations in English Literature, Greek, Latin, French, and German.

EXAMINATION STANDARDS.

5. (1) For a pass the standard shall be 60% of the aggregate marks of the papers on the subjects prescribed for the examination, as well as 40% on each paper. For honours it shall be 75% of the aggregate. Each examination paper shall be valued at 100, except in the Latin papers of the examination for Entrance into the Normal Schools, which shall be valued at 75 each.

(2) If, after all the answer papers have been read, any examination paper should be found by the Board of Examiners to be easier or more difficult than required, the minimum on the paper shall be correspondingly increased or diminished.

(3) At all the examinations for entrance into the professional schools, a report signed by all the members of the staff concerned as to the standing of their candidates will be taken into account in settling the results. Only the names of the candidates who, in the opinion of the staff, have completed satisfactorily the courses for the examination shall be included in this report. Such a report must be received at the Department not later than the first day of the examination to which the report refers.

6. (1) A candidate who makes the required aggregate but who fails to obtain the minimum in a subject, may be passed at the discretion of the Board of Examiners, provided he was reported by the staff of the school as competent and such report is found to be satisfactory.

(2) A candidate who has failed at the examination for Entrance into the Faculties of Education but who has obtained 40% of the aggregate of the marks for each part and 25% of the marks of each paper thereof, may on application to the Minister of Education be granted admission to a Normal or a Model School.

(3) A candidate who has failed at the examination for Entrance into the Normal Schools but who has obtained 40% of the aggregate marks therefor and 25% of the marks for each paper may on application to the Minister of Education be granted admission to a Model School.

APPEALS.

7. (1) The papers of all candidates, who, on the reading of the Associate Examiners, are found to have failed in any way by not more than a reasonable margin, shall be at once re-read by the Board of Examiners. Candidates who still fail on this second reading shall have their statements of marks stamped **re-read**, and in these cases no appeal will be allowed.

(2) Candidates who fail and whose papers have not already been read by the Board of Examiners may have their papers so re-read by making an appeal before September 1st and paying a fee of \$2.00.

(3) Should illness, bereavement or any other unavoidable cause interfere with a candidate's examination, such circumstances shall be duly considered by the Board of Examiners; but only when reported to the Department, with satisfactory documentary evidence, immediately at the close of the written examination.

CERTIFICATES.

8. The Board of Examiners shall report the results of the examination to the Minister of Education, and, when approved, certificates shall be issued to the successful candidates and statements of marks to those unsuccessful.

COMMUNICATIONS.

9. All communications in regard to examinations shall be addressed to the Deputy Minister of Education.



Examinations for Teachers of French-English Schools.

Unless otherwise legally qualified for Ontario, all teachers in French-English Schools, Public or Separate, in Nipissing District, will be required to pass an examination as herein detailed. The certificates granted to successful candidates will be valid for one, two or three years, depending upon the standing obtained, and will be accepted only in schools where French is required to be taught in addition to English. Teachers of such schools who may fail to present themselves at this examination will not be given permission to teach after July, 1899.

LIMITS OF EXAMINATION.

Text-books :

Reading.—Oral reading.

High School
Reader.

English Grammar and Rhetoric.—Etymology and Syntax, including the inflection, classification, and elementary analysis of words and the logical structure of the sentence; rhetorical structure of the sentence and paragraph; exercises chiefly on passages from authors not prescribed.

Public School
Grammar.

English Composition.—Essays on familiar subjects; familiar letters.

English Poetical Literature.—Intelligent and appreciative comprehension of the prescribed texts; memorization of the finest passages; supplementary reading from authors prescribed by the teacher; oral reading of the texts. The examination in literature will consist of "sight work" as well as of questions on the prescribed texts.

High School
Reader.

History.—The History of Canada; British History.

Public School
History.

Geography.—The building up of the earth: its land surface; the ocean; comparison of continents as to physical features,

Public School
Geography.

Text books. natural products and inhabitants : relations of physical conditions to animal and vegetable products, and of natural products and geographical condition to the occupations of the people and national progress. Form, size and motions of the earth ; lines drawn on the map, with reasons for their position ; relations of the positions of the earth with respect to the sun, to light and temperature ; the air ; its movements ; causes affecting climate. Natural and manufactured products of the countries of the world, with their exports and imports ; trans-continental commercial highways and their relation to centres of population ; internal commercial highways of Canada and the chief internal commercial highways of the United States ; commercial relations of Great Britain and her colonies. Forms of governments in the countries of the world and their relation to civilization.

Public School Arithmetic. *Arithmetic and Mensuration.*—Proofs of elementary rules in arithmetic ; fractions (theory and proofs) ; commercial arithmetic ; mental arithmetic ; mensuration of rectilinear figures.

High School Drawing Course. *Drawing.*—Object and model drawing ; High School Drawing Course, Books Nos. 1 and 2.

High School Bookkeeping. *Bookkeeping.*—Bookkeeping by single and double entry : commercial forms, such as drafts, notes and cheques ; general business transactions. The bookkeeping shall be specially suitable for farmers and artisans or for retail merchants and general traders.

Robert *French Grammar.*
French Composition.

ENGLISH LITERATURE SELECTIONS.

1899.—V. To Daffodils ; XVIII. Rule, Britannia ; XX. The Bard ; XXXI. To a Highland Girl ; XXXV. The Isles of Greece ; XLIX. Indian Summer ; LII. The Raven ; LIV. My Kate ; LXII. The Cane-bottomed Chair ; LXVII. The Hanging of the Crane ; LXIX. As Ships Becalmed at Eve ; CV. The Return of the Swallows.

1900.—V. To Daffodils ; XX. The Bard ; XXXI. To a Highland Girl ; XXXIV. The Well of St. Keyne ; XXXVI. Go where Glory Waits Thee ; XXXVII. Dear Harp of My Country ; XLI. The Cloud ; XLVI. The Bridge of Sighs ; LI. Horatius ; LXVII. The Hanging of the Crane ; LXXIX. The Lord of Burleigh ; LXXXI. The "Revenge."

In French Grammar and Composition the papers will be those prepared for the French Model Schools in Ottawa and Plantagenet. In all other subjects the papers will be those set for the Public School Leaving Examination.

Candidates who are not familiar with the scope and nature of this examination may derive some help from a study of the Public School

Leaving papers of former years, which may be obtained at twenty-five cents (25c.) a set from Messrs. Rowsell & Hutchinson, No. 76 King St. East, Toronto.

This examination will be held at Mattawa, North Bay and Sudbury, beginning on June 28th, at 8.45 a.m.

Application should be made not later than May 24th, to Rev. Geo. Grant, B.A., Inspector of Public Schools, Orillia. The fee of \$1 must accompany each application.

GEO. GRANT, B.A.,
Inspector of Public Schools.

WM. PRENDERGAST, B.A.,
Inspector of Separate Schools.

CIRCULAR 20.

500—Jan'y, 1899



Holders of LIMITED **THIRD CLASS CERTIFICATES**

DECEMBER 1908

NOTE.—Those whose names are scored out have already made agreements with School Boards.

Edna Addison, Port Sydney
Hattie Brown, Port Sydney
Flossie Brown, Fennells
Ethel F. Bullen, Allansville
Bella Carr, Trout Creek
Pearl Day, Creemore
Godfrey J Grunig, Wattenwil
Ina Estelle Hanes, Utterson
Clara Hardy, Huntsville
Lizzie Heslip, Parry Harbour
Mary Jennett, Utopia
Olive Gladys King, Windemere
Enid Knowles, Ufford
Milicent Lang, Sundridge
Vida B Loughheed, 675 Bathurst, Toronto
Eunice Middlebrook, Cashtown
Margaret McCuaig, Guthrie
Florence McCullough, Glenhuron
Pearl E McDonald, Emsdale
Minnie Alice McEachren, Gravenhurst
Minnie Scutt, Avening
Sarah A Weitman, Barrie

Laura E Blair, Cooper
Milton W Brock, Wyevale
Hazel L Carscadden, Cadmus
Mary Costello, Ennismore
Lila Davis, Lifford
Annie B Devitt, Blackstock
Mae B Glide, Port Perry
Florence Hubble, Stirling
Mabel L Jeffries, Orillia
May Johnson, Bobcaygeon

W H Keslick, Cresswell
Gertrude Lockhart, Elizabethville
Samuel Minthorne, Lindsay
Donald McGuarrie, Argyle
Ada McCurdy, Stirling
Margaret O'Neil, Hastings
Meta M Power, Lindsay

Ina L Gibson, O'Connor
Teressia Lockhart, Devlin
Margaret McPherson, Shenston
Annie Munro, Slate River Valley
Florence Snider, Norman
Clara Touchette, Westfort

Alma M Burke, Sault Ste Marie
William E Burke, Sault Ste Marie
Mary Cunningham, Thessalon
Hazel W. Jaques, Sault Ste Marie
Florence Leishman, Bruce Mines
Annie Morrison, Rydal Bank
Burleigh Mulholland, Sault Ste Marie
Jannet McCulloch, Goldenburgh
Marion McPhee, Sault Ste Marie
Annastatia McDonald, Sault Ste Marie
Eliza McCrae, Bruce Mines
Madge Owens, " "
Della P Owen, " "
Millicent Rowe, " "
Ethel C Stinson, Thessalon
Ernest E Smith, Sault Ste Marie
Mary Thomas, Echo Bay

HOLDERS OF LIMITED

Gertrude Agnew, Douglas	May L Asselstine, Roblin
Nettie Bell, Arnprior	Ethel S Baker, Harrowsmith
Wm G Blair, Fallbrook	Jean Bawdon, Kingston
Minnie G Boland, Renfrew	Maude E Bell, Kingston
Pearl Condie, Smith's Falls	Edna C Bicknell, Camden East
Annie Dalglish, Admaston	Annie M Black, Solmesville
Lizzie M Dixon, Woodlawn	Teressa E Boyce, Violet
Katie E Faught, Eganville	Carrie May Briggs, Gananoque
Irene Fraser, Pembroke	Elleda Byington, Athens
Irene Galvin, Arnprior	Nellie M Clinton, Bloomfield
Mary R Grace, Almonte	Effie P Day, Harrowsmith
Annie M Graham, Smith's Falls	Ethel G Donaldson, Kingston
Clare Hannah, Cobden	John P Fahey, Elgin
Marion Kearney, Renfrew	Katherine C Finn, Enterprise
Besey A Kiley, Shamrock	Edna Fleming, Kingston
Elizabeth McDermott, Arnprior	Mary S Fleming, Stella
Agnes J McDonald, Eau Claire	Hazel C Foley, Howe Island
Gertrude Metcalfe, Almonte	Mabel M Forrester, Westport
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Gertrude Moulton, Prestonvale	Lena Grant, Bedford Mills
Sadie Mulligan, Pembroke	Etta M Grimshaw, Kingston
Clara E Munro, Carp	Flossie M Hall, Deseronto
Susan Murphy, Anprior	Ella D Hamilton, Godfrey
Annie Norton, Pembroke	Oscar R Harvey, Lyndhurst
Margaret O'Shaughnessy, Bulger	Clara Hineman, Cherry Valley
Bessie H. Rea, Almonte	George Hutchings, Jones Falls
Grace Ross, Renfrew	Ina Irene Lake, Sydenham
Cecelia Rowan, Fitzroy Harbour	Estella C Lynch, Erinsville
Katie Ryan, Killaloe	Raymond M Madden, Kingston
Harriet M Seeley, Carswell	Myrtle Mylks, Brockville
Winnifred Sheedy, Cobden	Mazie McCann, Westport
Mary Smith, Suake River	Julia E McCann, Westport
Maud Smith, Renfrew	Mary C McCallum, Sunbury
Irene Stack, Douglas	Mary G McDonald, Kingston
Gladys Steele, Cobden	Christena MacDougall, Spencerville
Jessie E Stewart, Poland	Mary L McMullen, Newburgh
Winona Stewart, Renfrew	Anna C Nolan, Athens
Annie Sullivan, Pembroke	Frank D O'Connor, Sydenham
Mayno Warnock, Arnprior	T Bernard Patterson, Inverary
Caroline Watt, Lavant Station	Irene Palmer, Westport
Phoebe E Weidmark, Beachburg	Laura M Phillipps, Harrowsmith
Edwin Weir, Kilmaurs	Timothy E Pomeroy, Newburgh
Elsie E Wilson, Carleton Place	Allie Powell, Prescott
Anna Windle, Boyd	Sadie Ryan, Newboro
Besey Windle, Ashdod	Annie P Ryder, Kingston
Margaret M Windle, Ashdod	Mildred G Scammell, Kingston
Gertrude Whelan, Whelan Lake	Jennie E Scholes, Kingston
Hiram H Wright, Almonte	Jewel E Sigsworth, Hartington

THIRD CLASS CERTIFICATES

William J Skinner, Yarker
John Stephenson, Bath
Grace E Stewart, Lyn
W Frank Strong, Hilton
Laura A Tait, Groveton
Inez Tennant, Brockville;
Ethel E Topliff, Bath
M Eleanor Wager, Deseronto
Jennie E Whalen, Hinch
Mabel Woodman, St Lawrence
(Wolfe Island)

Bonar Brakin, Orangeville
Myrtle E Burrows, Drayton
D Clark Dargavel, Wiarton
Ambrosine Dyke, Kenilworth
Maybelle Fadden, Markdale
Mary E Green, Louise
Margaret Howe, Teeswater
Hannah Jaffray, Macville
Laurette E Kirke, Dungannon
Annie L Marrie, Kingscote
Janet M McDonald, Drayton
Wilfrid C McDowell, Drayton
Myrtle McGillivray, Ripley
Tracey E McLuhan, Mount Forest
Mary R McKenzie, Bolton
Wilda McKenzie, Leamington
L Irene Meyer, Meaford
Dennis O'Leary, Bolton
Laurel Penfound, Beeton
Charlie C Ramage, Durham
Marion Russell, Bolton
Laura Strachan, Brussels
Ina H Taylor, Mono Mills
Beatrice Towriss, Riverbank
Mable F Walpole, Willisicroft
Gertrude Welwood, Macville
Wesley J Welwood, Mono Mills
Isabel Young, Gresham

Alphonsine Adam, St. Alberts
Helen B Allen, Rylstone
Ethel H Baker, Brockville
Violet Baker, Alexandria
Hannah A Begg, Tayside
Clayton Bradely, Carsonby
Floyd Burwash, Vankleek Hill
Joseph Cameron, Finch
Annie Campbell, Williamstown
Georgiana Cattanaach, Williamstown
Robert Cochrane, Bishop's Mills
Maud Gallinger, Cornwall
Bertha Gibbons, Chesterville
Blanche Grant, Iroquois
Annie Hurley, Vankleek Hill
Gertrude A Kelley, Brockville
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Minnie Loftus, South Mountain
Christina MacArthur, Kenmore
Gertrude MacArthur, Kenmore
Margaret MacDougall, Alexandria
Irene S MacGregor, Athol
Lilian Maneely, Barb
Clara McGillivray, Lochiel
Bertha McGregor, Martintown
Huena McIntosh, Avonmore
Edna McKillican, Vankleek Hill
Annie Moffat, Morewood
James Moxley, c/o Pr. Cornwall M.S.
Minnie Ramage, Clarence
Clara B Rath, Brockville
Edith P Robinson, Kemptville
Edna P Robinson, Maynard
Edna Rolston, Metcalfe
Walter L Rombough, Cornwall
Nora Sharkey, Cumberland
Lilian Wells, Winchester
Wesley Wilson, Merrickville
Myrtle Woods, Metcalfe

Hazel E Markel, Box 78, Aultsville
 Jessie McLennan, c/o H Fettlerly, Cornwall
 Mata Estella Vannest, Marlbank
 Emanuel Lyon, Sykeston
 Helena Cleary, c/o Insp. McNaughton, Cornwall
 Mary Shaver, " " "
 Almeda Glanfield, Jarvis
 Gladys Fern Watson, Cape Rich
 Alice Burt, c/o Prin. Public School, Owen Sound

[OVER]

HOLDERS OF LIMITED THIRD CLASS CERTIFICATES

Agnes Sandilands, Lancaster
 Annie L Storms, c/o Inspector Platt, Picton
 Frances Pearl Irwin, Angus
 Almer Gibson, Hepworth
 Amy Ferguson, Gravenhurst
 Elliott Oldham, c/o Inspector McKee, Barrie
 Maude Ellison, " " "
 Edith Grantham, " " "
 William Gunn, " " "
 Lillian Hunter, " " "
 Lillian Steele, " " "
 Flossie Switzer, " " "
 Mabel Lucas, " " "
 Maggie Kennedy, " " "
 Robert Knox, C P R offices, West St John, N B
 Mabel Jeffrey, Bronson, Hastings Co
 Ethel Brooks, c/o H R Scovell, I P S, Bracebridge
 Katharine C White, Kilworthy
 Evalena Clancy, Newburgh
 Erie Douglas, c/o Insp. Smith, Hamilton
 E Daisy Carter, Box 71, Chatham
 Bryant Fraser, Stayner
 Aileen M Gallaher, Paris (Maple Grange)
 Victoria Jane D Toole, 123 Balmoral Ave, Toronto
 Margaret M McDonald, Drayton
 Allie M Montague, Drysdale
 Bernadetta Dowling, Enterprise
 Laura Griffin, Mattawa



**LIST OF CONTINUATION CLASSES, Showing Special Legislative
Grant for 1906 and Legislative and County
Equivalent Grant for 1907.**

Inspectorate	Name of School	Special Legislative Grant 1906	Legislative Grant 1907	County Equiva- lent 1907	Total of Three Grants
		\$	\$	\$	\$
Brant.....	20 Brantford.....		22 50	22 50	45 00
	22 ".....	7 50			7 50
	8 Burford.....	7 50			7 50
	11 ".....	7 50	22 50	22 50	52 50
	24 ".....	7 50			7 50
	8 S. Dumfries.....	50 00	190 00	190 00	430 00
	12 ".....	7 50			7 50
	14 ".....	7 50			7 50
	Total.....	95 00	235 00	235 00	565 00
Bruce, E.....	14 Carrick.....	7 50			7 50
	Total.....	7 50			7 50
Bruce, W.....	Lucknow.....	25 00	95 00	95 00	215 00
	Paisley.....	75 00	380 00	380 00	835 00
	Southampton.....	50 00	190 00	190 00	430 00
	Teeswater.....	50 00	190 00	190 00	430 00
	Tiverton.....	7 50	37 50	37 50	82 50
	4 Culross.....	7 50			7 50
	10 ".....		22 50	22 50	45 00
	5 Greenock.....	7 50			7 50
	10 Huron.....	50 00	190 00	190 00	430 00
	12 ".....	7 50	22 50	22 50	52 50
	14 ".....	7 50			7 50
	2 Kinloss.....		22 50	22 50	45 00
	10 ".....	12 50	37 50	37 50	87 50
	Total.....	300 00	1,187 50	1,187 50	2,675 00
Carleton.....	Hintonburgh.....	25 00	95 00	95 00	215 00
	Ottawa, E.....	25 00	190 00	190 00	405 00
	Richmond.....	50 00	190 00	190 00	430 00
	5 Fitzroy.....	50 00	190 00	190 00	430 00
	8 ".....	50 00	142 50	142 50	335 00
	5 Gloucester.....		190 00	190 00	380 00
	9 ".....	12 50	190 00	190 00	392 50
	5 Goulburn.....	50 00	190 00	190 00	430 00
	7 ".....	50 00	190 00	190 00	430 00
	12 ".....	25 00	95 00	95 00	215 00
	3 N. Gower.....	75 00	113 75	113 75	302 50
	6 N. Gower.....	28 75	190 00	190 00	408 75
	3 Huntley.....	25 00	142 50	142 50	310 00
	3 Marlborough.....	10 00	66 25	66 25	142 50
	1 Nepean.....	50 00			50 00

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Thre Grants.
		\$	\$	\$	\$
Carleton.— <i>Continued.</i>	10 Nepean.....	12 50	95 00	95 00	202 50
	11 Osgoode.....	75 00	380 00	380 00	835 00
	15 “.....	31 25	190 00	190 00	411 25
	18 “.....	10 00	95 00	95 00	200 00
	22 “.....	7 50	.....	.....	7 50
	Total.....	662 50	2,935 00	2,935 00	6,532 50
Dufferin.....	Grand Valley.....	50 00	190 00	190 00	430 00
	Shelburne.....	100 00	380 00	380 00	860 00
	2 Melancthon.....	12 50	22 50	22 50	57 50
	17 Mono.....	7 50	37 50	37 50	82 50
	Total.....	170 00	630 00	630 00	1,430 00
Dundas.....	Chesterville.....	50 00	190 00	190 00	430 00
	Winchester.....	50 00	190 00	190 00	430 00
	22 Mountain.....	7 50	37 50	37 50	82 50
	12 Winchester.....	50 00	190 00	190 00	430 00
	Total.....	157 50	607 50	607 50	1,372 50
Durham.....	Millbrook.....	50 00	190 00	190 00	430 00
	1 Cartwright.....	.....	22 50	22 50	45 00
	5 “.....	7 50	.....	.....	7 50
	6 “.....	7 50	.....	.....	7 50
	8 “.....	.....	22 50	22 50	45 00
	9 Cavan.....	7 50	37 50	37 50	82 50
	4 Clarke.....	.....	37 50	37 50	75 00
	12 “.....	7 50	22 50	22 50	52 50
	11 Darlington.....	.....	37 50	37 50	75 00
	16 “.....	.....	22 50	22 50	45 00
	20 “.....	.....	37 50	37 50	75 00
	2 Manvers.....	.....	22 50	22 50	45 00
	5 “.....	12 50	.....	.....	12 50
	7 “.....	7 50	22 50	22 50	52 50
	15 “.....	.....	22 50	22 50	45 00
	1 S. Monaghan.....	.....	22 50	22 50	45 00
	5 “.....	7 50	22 50	22 50	52 50
	Total.....	107 50	542 50	542 50	1,192 50
Elgin.....	Port Stanley.....	25 00	37 50	37 50	100 00
	Springfield.....	25 00	142 50	142 50	310 00
	5 Aldborough.....	50 00	190 00	190 00	430 00
	6 “.....	50 00	190 00	190 00	430 00
	8 “.....	7 50	22 50	22 50	52 50
	10 “.....	.....	22 50	22 50	45 00
	2 Bayham.....	.....	22 50	22 50	45 00
	18 “.....	.....	22 50	22 50	45 00
	11 S. Dorchester.....	25 00	95 00	95 00	215 00
	5 Dunwich.....	12 50	22 50	22 50	57 50
	9 “.....	.....	22 50	22 50	45 00
	1 Southwold.....	.....	22 50	22 50	45 00
	2 “.....	.....	22 50	22 50	45 00
	4 “.....	.....	22 50	22 50	45 00
	6 “.....	12 50	.....	.....	12 50
	8 “.....	12 50	.....	.....	12 50

LIST OF CONTINUATION CLASSES.—*Continued*

Inspectorate.	Name of School.	Special Legisla- tive Grant 1906.	Legisla- tive Grant 1907.	Countv Equiva- lent 1907.	Total of three Grants.
Elgin.— <i>Continued.</i>	9 Southwold.....	\$ 25 00	\$ 37 50	\$ 37 50	\$ 100 00
	10 “.....	7 50	22 50	22 50	52 50
	11 “.....	12 50	37 50	37 50	87 50
	12 “.....		37 50	37 50	75 00
	7 Yarmouth.....		22 50	22 50	45 00
	18 “.....	7 50			7 50
	19 “.....		22 50	22 50	45 00
	22 “.....		22 50	22 50	45 00
	24 “.....		22 50	22 50	45 00
	Total.....	272 50	1,082 50	1,082 50	2,437 50
Essex, N.....	6 Sandwich, S.....	12 50			12 50
	Total.....	12 50			12 50
Essex, S.....	Amherstburg.....	100 00	380 00	380 00	860 00
	Kingsville.....	25 00	95 00	95 00	215 00
	2 Colchester, S.....	12 50	37 50	37 50	87 50
	9 “ N.....	12 50	190 00	190 00	392 50
	4 Tilbury, W.....	100 00	380 00	380 00	860 00
	Total.....	250 00	1,082 50	1,082 50	2,415 00
Frontenac....	1 Oso.....		22 50	22 50	45 00
	7 Portland.....	7 50			7 50
	1 Storrington.....	7 50	37 50	37 50	82 50
	2 “.....	7 50			7 50
	Total.....	22 50	60 00	60 00	142 50
Glengarry....	Maxville.....	50 00	190 00	190 00	430 00
	12 Charlottenburg.....	7 50			7 50
	Total.....	57 50	190 00	190 00	437 50
Grey, E.....	Thornbury.....	12 50	37 50	37 50	87 50
	3 Euphrasia.....	12 50	37 50	37 50	87 50
	4 “.....	7 50			7 50
	Total.....	32 50	75 00	75 00	182 50
Grey, W.....	Chatsworth.....	12 50	22 50	22 50	57 50
	10 Sydenham.....		37 50	37 50	75 00
	Total.....	12 50	60 00	60 00	132 50
Grey, S.....	Dundalk.....	25 00	95 00	95 00	215 00
	Durham.....	150 00	570 00	570 00	1,290 00
	Hanover.....	50 00	190 00	190 00	430 00
	Markdale.....	25 00	95 00	95 00	215 00
	3 Artemesia.....		37 50	37 50	75 00
	5 “.....	25 00	22 50	22 50	70 00
	12 Artemesia & Glenelg..	7 50			7 50
	8 Bentinck.....		22 50	22 50	45 00
	3 Egremont.....		22 50	22 50	45 00
	13 “.....	12 50	37 50	37 50	87 50
	1 Glenelg.....		22 50	22 50	45 00
	9 “.....	7 50			7 50

LIST OF CONTINUATION CLASSES. —*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiv- alent 1907.	Total of Three Grants.
Grey, S.— <i>Continued.</i>		\$	\$	\$	\$
	4 Normanby	7 50	.....	.....	7 50
	16 "	12 50	.....	.....	12 50
	Total	322 50	1,115 00	1,115 00	2,552 50
Haldimand ...	1 Walpole	12 50	37 50	37 50	87 50
	2 "	7 50	22 50	22 50	52 50
	3 "	25 00	95 00	95 00	215 00
	10 "	50 00	190 00	190 00	430 00
	Total	95 00	345 00	345 00	785 00
Haliburton ...	1 Anson	7 50	37 50	37 50	82 50
	1 Monmouth	7 50	.....	.....	7 50
	Total	15 00	37 50	37 50	90 00
Halton	Acton	100 00	380 00	380 00	860 00
	Burlington	12 50	380 00	380 00	772 50
	Milton	100 00	380 00	380 00	860 00
	3 Nelson	7 50	.....	.....	7 50
	Total	220 00	1,140 00	1,140 00	2,500 00
Hastings, N...	Marmora	25 00	95 00	95 00	215 00
	3 Elzevir	7 50	.....	.....	7 50
	Total	32 50	95 00	95 00	222 50
Hastings, S...	Tweed	50 00	190 00	190 00	430 00
	20 Hungerford	7 50	.....	.....	7 50
	4 Sidney	12 50	.....	.....	12 50
	7 "	7 50	.....	.....	7 50
	11 "	12 50	37 50	37 50	87 50
	29 Tyendinaga	12 50	37 50	37 50	87 50
	Total	102 50	265 00	265 00	632 50
Huron, E....	Blyth	50 00	190 00	190 00	430 00
	Brussels	100 00	380 00	380 00	860 00
	Wingham	100 00	.....	.....	100 00
	Wroxeter	12 50	37 50	37 50	87 50
	4 Grey .....	.....	22 50	22 50	45 00
	11 "	12 50	58 75	58 75	130 00
	5 Morris	12 50	.....	.....	12 50
	2 Tuckersmith	7 50	.....	.....	7 50
	3 "	12 50	.....	.....	12 50
	9 "	7 50	.....	.....	7 50
	9 Turnberry	7 50	.....	.....	7 50
	Total	322 50	688 75	688 75	1,700 00
Huron, W....	Bayfield	12 50	.....	.....	12 50
	Exeter	150 00	570 00	570 00	1,290 00
	Hensall	12 50	22 50	22 50	57 50
	3 Ashfield	12 50	22 50	22 50	57 50
	4 "	12 50	.....	.....	12 50
	6 " .....	.....	22 50	22 50	45 00
	8 "	12 50	37 50	37 50	87 50

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiv- alent 1907.	Total of Three Grants.
Huron, W.— <i>Continued.</i>		\$	\$	\$	\$
	9 Ashfield	7 50			7 50
	15 "	7 50	22 50	22 50	52 50
	U.1 Ashfield & Colborne	7 50			7 50
	2 Colborne	7 50			7 50
	5 "	7 50			7 50
	2 Goderich	7 50	22 50	22 50	52 50
	9 "		22 50	22 50	45 00
	3 Hay	7 50			7 50
	7 "	7 50			7 50
	14 "		22 50	22 50	45 00
	3 Stanley		22 50	22 50	45 00
	4 "	7 50			7 50
	6 "	7 50	37 50	37 50	82 50
	9 "	7 50			7 50
	10 "		22 50	22 50	45 00
	14 "	7 50	22 50	22 50	52 50
	1 Stephen	7 50			7 50
	5 "	12 50	95 00	95 00	202 50
	16 "	7 50			7 50
	6 Usborne	7 50			7 50
	6 E. Wawanosh	7 50			7 50
	9 "		22 50	22 50	45 00
	13 "		22 50	22 50	45 00
	17 "		22 50	22 50	45 00
	4 W. Wawanosh		22 50	22 50	45 00
	17 "	12 50	22 50	22 50	57 50
	Total	357 50	1,077 50	1,077 50	2,512 50
Kent, E.....	Blenheim	100 00	380 00	380 00	860 00
	Bothwell	100 00	380 00	380 00	860 00
	Dresden		380 00	380 00	760 00
	Thamesville	50 00	380 00	380 00	810 00
	3 Camden		22 50	22 50	45 00
	6 "		22 50	22 50	45 00
	8 "	12 50	37 50	37 50	87 50
	U.4 Camden	7 50	22 50	22 50	52 50
	2 Harwich	12 50			12 50
	3 "	7 50	37 50	37 50	82 50
	4 "	25 00	22 50	22 50	70 00
	6 "	7 50	22 50	22 50	52 50
	7 "	12 50	22 50	22 50	57 50
	8 "	12 50	22 50	22 50	57 50
	11 "	12 50	37 50	37 50	87 50
	12 "	12 50	22 50	22 50	57 50
	13½ "	7 50	37 50	37 50	82 50
	14 "		37 50	37 50	75 00
	16 "	7 50	22 50	22 50	52 50
	2 Howard	7 50	22 50	22 50	52 50
	3 "		22 50	22 50	45 00
	7 "		22 50	22 50	45 00
	10 "	7 50	22 50	22 50	52 50
	11 "	7 50	22 50	22 50	52 50
	12 "	12 50			12 50
	14 "		22 50	22 50	45 00
	2 Orford	12 50	37 50	37 50	87 50
	3 & 4 "	7 50			7 50
	5 "	7 50			7 50
	6 "	100 00	190 00	190 00	480 00

LIST OF CONTINUATION CLASSES.—Continued.

Inspectorate.	Name of School.	Special Legislative Grant 1903.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Kent, E.— <i>Continued.</i>		\$	\$	\$	\$
	7 Oxford.....	7 50	37 50	37 50	75 00
	9 ".....	7 50			7 50
	3 Zone.....	12 50			12 50
	5 ".....	12 50			12 50
	Total.....	582 50	2,310 00	2,310 00	5,202 50
Kent W.....	Dresden.....	100 00			100 00
	Tilbury.....	12 50	190 00	190 00	392 50
	Wallaceburg.....	100 00	380 00	380 00	860 00
	1 Chatham.....	12 50	37 50	37 50	87 50
	9 ".....	12 50	37 50	37 50	87 50
	6 N. Chatham.....	7 50	22 50	22 50	52 50
	6 S. Chatham.....	7 50	22 50	22 50	52 50
	8 ".....	7 50			7 50
	11 ".....		22 50	22 50	45 00
	17 ".....	7 50			7 50
	18 ".....	7 50			7 50
	8 Dover.....		22 50	22 50	45 00
	11 ".....		22 50	22 50	45 00
	3 Raleigh.....	7 50	22 50	22 50	52 50
	5 ".....	12 50	37 50	37 50	87 50
	7 ".....	12 50	37 50	37 50	87 50
	9 ".....		37 50	37 50	75 00
	12 ".....	12 50	37 50	37 50	87 50
	4 N. Raleigh.....	7 50			7 50
	U.3 Raleigh.....	7 50	22 50	22 50	52 50
	U.5 ".....	12 50	22 50	22 50	57 50
	1 Romney.....	12 50	37 50	37 50	87 50
	U.4 ".....	12 50	95 00	95 00	202 50
	2 E. Tilbury E.....	7 50	22 50	22 50	52 50
	3 ".....		22 50	22 50	45 00
	4 ".....		22 50	22 50	45 00
	5 ".....	12 50	37 50	37 50	87 50
	6 ".....		22 50	22 50	45 00
	3 N. ".....	7 50			7 50
	8 N. ".....	7 50			7 50
	3 S. ".....	12 50			12 50
	Total.....	420 00	1,235 00	1,235 00	2,890 00
Lambton E...	Alvinston.....	100 00	380 00	380 00	860 00
	Arkona.....	12 50			12 50
	Oil Springs.....	50 00	380 00	380 00	810 00
	Total.....	162 50	760 00	760 00	1,682 50
Lambton W...	Thedford.....		22 50	22 50	45 00
	11 Moore.....	7 50	37 50	37 50	82 50
	18 ".....	7 50	37 50	37 50	82 50
	5 Plympton.....		22 50	22 50	45 00
	6 Sombra.....		22 50	22 50	45 00
	7 ".....		45 00	45 00	90 00
	17 ".....		22 50	22 50	45 00
	Total.....	15 00	210 00	210 00	435 00
Lanark.....	Lanark.....	50 00	190 00	190 00	430 00
	2 Dalhousie.....	7 50			7 50

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Lanark.—		\$	\$	\$	\$
<i>Continued.</i>	6 Lanark	7 50	22 50	22 50	52 50
	4 Pakenham.....	50 00	190 00	190 00	430 00
	11 Ramsay		22 50	22 50	45 00
	Total.....	115 00	425 00	425 00	965 00
Leeds & Gren-	Newboro	7 50			7 50
ville No. 1..	Westport	50 00	190 00	190 00	430 00
	6 Bastard		22 50	22 50	45 00
	11 "		37 50	37 50	75 00
	5 Crosby S.	12 50			12 50
	Total	70 00	250 00	250 00	570 00
Leeds & Gren-	7 Elizabethtown	7 50	22 50	22 50	52 50
ville No. 2..	11 Kitley	7 50	22 50	22 50	52 50
	15 "	7 50			7 50
	22 "	12 50	22 50	22 50	57 50
	7 Wolford		22 50	22 50	45 00
	4 Ft. of Yonge		22 50	22 50	45 00
	Total.....	35 00	112 50	112 50	260 00
Leeds & Gren-	Cardinal.....	25 00	95 00	95 00	215 00
ville No. 3..	Merrickville	50 00	190 00	190 00	430 00
	17 Augusta		22 50	22 50	45 00
	15 Edwardsburg	12 50	190 00	190 00	392 50
	U.1 and 5 Orford	7 50	37 50	37 50	82 50
	Total	95 00	535 00	535 00	1165 00
Lennox and	Bath	50 00	190 00	190 00	430 00
Addington..	2 Amherst Id.		22 50	22 50	45 00
	3 "		22 50	22 50	45 00
	13 Ernesttown	7 50	22 50	22 50	52 50
	7 S. Fredericksburg	7 50			7 50
	2 Kaladar		22 50	22 50	45 00
	Total.....	65 00	280 00	280 00	625 00
Lincoln.....	11 Gainsborough	7 50	22 50	22 50	52 50
	Total.....	7 50	22 50	22 50	52 50
Middlesex E..	2 Delaware		37 50	37 50	75 00
	4 N. Dorchester	7 50	37 50	37 50	82 50
	U.9 and 14 "	7 50	22 50	22 50	52 50
	16 "	7 50			7 50
	2 Missouri		22 50	22 50	45 00
	7 " N.	7 50			7 50
	7 Westminster	7 50			7 50
	Total.....	37 50	120 00	120 00	277 50
Middlesex, W.	Ailsa Craig	7 50	22 50	22 50	52 50
	8 Caradoc	7 50			7 50
	15 "	7 50			7 50
	2 Caradoc & Ekfrid		22 50	22 50	45 00
	6 "		22 50	22 50	45 00

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907	County Equiv- alent 1907.	Total of Three Grants.
Middlesex, W.		\$	\$	\$	\$
	14 Caradoc & Ekfrid		22 50	22 50	45 00
	16 “ “	25 00	95 00	95 00	215 00
	8 Ekfrid		22 50	22 50	45 00
	8 Lobo	7 50			7 50
	10 “ “	12 50			12 50
	6 E. Williams	7 50	22 50	22 50	52 50
	Total	75 00	230 00	230 00	535 00
Norfolk	Delbi	12 50	37 50	37 50	87 50
	8 Houghton		22 50	22 50	45 00
	2 Middleton	7 50	22 50	22 50	52 50
	5 “ “	7 50			7 50
	15 N. Walsingham	7 50			7 50
	Total	35 00	82 50	82 50	200 00
Northumber- land	16 Cramahe and Brighton	12 50			12 50
	2 Percy	50 00	190 00	190 00	430 00
	9 “ “		22 50	22 50	45 00
	Total	62 50	212 50	212 50	487 50
Ontario, N....	Beaverton	25 00	95 00	95 00	215 00
	Cannington	12 50	37 50	37 50	87 50
	4 Brock	7 50			7 50
	6 “ “		22 50	22 50	45 00
	13 “ “	12 50	37 50	37 50	87 50
	1 Mara		37 50	37 50	75 00
	2 “ “	12 50	22 50	22 50	57 50
	8 “ “		37 50	37 50	75 00
	9 “ “		22 50	22 50	45 00
	5 Scott		37 50	37 50	75 00
	8 “ “		22 50	22 50	45 00
	7 Uxbridge		22 50	22 50	45 00
	Total	70 00	395 00	395 00	860 00
Ontario, S....	3 Pickering	7 50			7 50
	15 “ “	7 50	22 50	22 50	52 50
	4 W. Pickering	7 50			7 50
	3 Whitby	7 50			7 50
	Total	30 00	22 50	22 50	75 00
Oxford	Embro	12 50	22 50	22 50	57 50
	Norwich	100 00	380 00	380 00	860 00
	U. 4 and 8 Blandford and Blenheim	7 50			7 50
	11 Blenheim	25 00	95 00	95 00	215 00
	24 “ “	25 00	95 00	95 00	215 00
	U. 21 and 3 Blenheim and Burford	25 00	190 00	190 00	405 00
	5 Dereham	12 50	37 50	37 50	87 50
	6 “ “	7 50	37 50	37 50	82 50
	12 “ “	12 50	37 50	37 50	87 50
	U. 13 and 3 Nissouri and S. Norwich	7 50			7 50

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Oxford.— <i>Continued.</i>		\$	\$	\$	\$
	U. 5 and 1 E. Nissouri and Norwich.....	25 00	37 50	37 50	100 00
	U. 3 N. Norwich and E. Oxford.....	25 00	95 00	95 00	215 00
	6 S. Norwich.....	50 00	22 50	22 50	95 00
	5 E. Oxford.....	.....	22 50	22 50	45 00
	10 E. Zorra.....	12 50	22 50	22 50	57 50
	15 E. Zorra.....	7 50	.....	.....	7 50
	U. 13 and 3 E. Zorra and S. Easthope.....	50 00	190 00	190 00	430 00
	Total.....	405 00	1,285 00	1,285 00	2,975 00
Peel.....	Bolton.....	50 00	190 00	190 00	430 00
	Total.....	50 00	190 00	190 00	430 00
Perth.....	Milverton.....	12 50	37 50	37 50	87 50
	10 Blanchard.....	7 50	.....	.....	7 50
	U. 11 ".....	.....	22 50	22 50	45 00
	7 Downie.....	7 50	.....	.....	7 50
	2 N. Easthope.....	.....	22 50	22 50	45 00
	U. 10 S. Easthope.....	.....	22 50	22 50	45 00
	7 Ellice.....	7 50	.....	.....	7 50
	5 Elma.....	7 50	22 50	22 50	52 50
	6 ".....	7 50	.....	.....	7 50
	10 ".....	12 50	22 50	22 50	57 50
	U. 4 Fullarton.....	7 50	.....	.....	7 50
	11 Logan.....	7 50	.....	.....	7 50
	U. 6 ".....	7 50	22 50	22 50	52 50
	4 Mornington.....	12 50	.....	.....	12 50
	8 ".....	.....	22 50	22 50	45 00
	Total.....	97 50	195 00	195 00	487 50
Peterboro.....	Havelock.....	25 00	95 00	95 00	215 00
	Lakefield.....	.....	95 00	95 00	190 00
	4 Ennismore.....	50 00	190 00	190 00	430 00
	2 Harvey.....	.....	11 50	11 50	23 00
	4 Otonabee.....	7 50	95 00	95 00	197 50
	5 ".....	.....	22 50	22 50	45 00
	Total.....	82 50	509 00	509 00	1,100 50
Prescott and Russell.....	2 Cumberland.....	7 50	.....	.....	7 50
	3 ".....	12 50	37 50	37 50	87 50
	4 ".....	7 50	.....	.....	7 50
	8 E. Hawkesbury.....	.....	22 50	22 50	45 00
	3 Longueuil.....	.....	22 50	22 50	45 00
	10 Plantagenet.....	.....	22 50	22 50	45 00
	2 Russell.....	12 50	.....	.....	12 50
	Total.....	40 00	105 00	105 00	250 00
Prince Edward	Bloomfield.....	.....	95 00	95 00	190 00
	Wellington.....	25 00	22 50	22 50	70 00
	11 Ameliasburg.....	12 50	37 50	37 50	87 50
	1 Athol.....	.....	22 50	22 50	45 00
	7 Hallowell.....	25 00	.....	.....	25 00

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiv- alent 1907.	Total of Three Grants.
Prince Edward <i>Continued.</i>		\$	\$	\$	\$
	13 Hallowell.....	22 50	22 50	22 50	45 00
	17 Hillier.....	22 50	22 50	22 50	45 00
	10 S. Marysburg.....	7 50			7 50
	8 Sophiasburg.....	7 50			7 50
	Total.....	77 50	222 50	222 50	522 50
Renfrew.....	Cobden Village.....	7 50			7 50
	Eganville.....	12 50	95 00	95 00	202 50
	4 Bagot.....	7 50			7 50
	2 Brudenell.....	12 50	37 50	37 50	87 50
	1 McNab.....	7 50	22 50	22 50	52 50
	3 B. Rolph.....	7 50			7 50
	4 Ross.....	7 50			7 50
	6 ".....		22 50	22 50	45 00
	5 Stafford.....	7 50	22 50	22 50	52 50
	7 Westmeath.....	7 50	37 50	37 50	82 50
	8 ".....	7 50			7 50
	2 Wilberforce.....	7 50			7 50
	Total.....	92 50	237 50	237 50	567 50
Simcoe, N....	Creemore.....	50 00	190 00	190 00	430 00
	5 Flos.....	12 50	190 00	190 00	392 50
	7 ".....	7 50			7 50
	3 Nottawasaga.....	7 50	37 50	37 50	82 50
	14 ".....	7 50	22 50	22 50	52 50
	20 ".....		37 50	37 50	75 00
	U. 5 " and Osprey.....	7 50	37 50	37 50	82 50
	5 Sunnidale.....	7 50	22 50	22 50	52 50
	Total.....	100 00	537 50	537 50	1,175 00
Simcoe, E....	Penetanguishene.....	100 00			100 00
	7 Medonte.....		37 50	37 50	75 00
	8 Oro.....	7 50			7 50
	11 ".....		22 50	22 50	45 00
	Total.....	107 50	60 00	60 00	227 50
Simcoe, S. W.	Alliston.....	100 00	380 00	380 00	860 00
	Beeton.....	100 00	380 00	380 00	860 00
	Stayner.....	100 00	380 00	380 00	860 00
	Tottenham.....	100 00	380 00	380 00	860 00
	3 Adjala.....		37 50	37 50	75 00
	4 ".....		22 50	22 50	45 00
	5 ".....	12 50	22 50	22 50	57 50
	8 ".....		22 50	22 50	45 00
	9 ".....		22 50	22 50	45 00
	2 Essa.....	7 50	22 50	22 50	52 50
	3 ".....	7 50			7 50
	4 ".....		22 50	22 50	45 00
	5 ".....	100 00	380 00	380 00	860 00
	6 ".....	12 50	37 50	37 50	87 50
	7 ".....	25 00	95 00	95 00	215 00
	9 ".....	7 50	22 50	22 50	52 50
	10 ".....	7 50	37 50	37 50	82 50
	11 ".....		22 50	22 50	45 00
	5 Gwillimbury, W.....	7 50	22 50	22 50	52 50
	10 ".....	7 50	95 00	95 00	197 50

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1907.	Legislative Grant 1907.	County Equiv- alent 1907.	Total of Three Grants.
Simcoe, S. W. <i>Continued</i>		\$	\$	\$	\$
	4 Innisfil	12 50	37 50	37 50	87 50
	5 "		22 50	22 50	45 00
	6 "	7 50	37 50	37 50	82 50
	7 "	7 50	37 50	37 50	82 50
	8 "	7 50	22 50	22 50	52 50
	9 "	12 50	37 50	37 50	87 50
	10 "	7 50	22 50	22 50	52 50
	14 "		22 50	22 50	45 00
	3 Sunnidale	12 50	37 50	37 50	87 50
	5 "		22 50	22 50	45 00
	6 "	12 50	37 50	37 50	87 50
	9 "		22 50	22 50	45 00
	10 "		22 50	22 50	45 00
	7 Tecumseth	7 50	37 50	37 50	82 50
	8 "	7 50			7 50
	11 "	7 50	37 50	37 50	82 50
	13 "		22 50	22 50	45 00
	19 "		22 50	22 50	45 00
	2 Tossorontio	7 50	22 50	22 50	52 50
	4 "	12 50	37 50	37 50	87 50
	5 "	12 50	37 50	37 50	87 50
	6 "	7 50			7 50
	8 "	7 50	22 50	22 50	52 50
	Total	745 00	3,027 50	3,027 50	6,800 00
Stormont.....	3 Finch	50 00	190 00	190 00	430 00
	1 Osnabruck	12 50	37 50	37 50	87 50
	3 "	7 50			7 50
	4 "	50 00			50 00
	15 "	7 50			7 50
	14 Roxborough.....	50 00	190 00	190 00	430 00
	Total	177 50	417 50	417 50	1,012 50
Victoria, E....	Bobcaygeon.....	37 50	95 00	95 00	227 50
	3 Somerville		22 50	22 50	45 00
	Total	37 50	117 50	117 50	272 50
Victoria, W...	Fenelon Falls.....	50 00	190 00	190 00	430 00
	8 Mariposa.....	7 50			7 50
	12 "	7 50	37 50	37 50	82 50
	Total	65 00	227 50	227 50	520 00
Waterloo, 1 ...	Hespeler.....	7 50	37 50	37 50	82 50
	7 Woolwich.....	7 50	22 50	22 50	52 50
	Total	15 00	60 00	60 00	135 00
Waterloo, 2 ...	Ayr	25 00	37 50	37 50	100 00
	New Hamburg.....	7 50	37 50	37 50	82 50
	16 Wellesley.....		22 50	22 50	45 00
	Total	32 50	97 50	97 50	227 50
Welland	Bridgeburg.....	25 00	95 00	95 00	215 00
	Fort Erie	25 00	22 50	22 50	70 00

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Welland.— <i>Continued.</i>		\$	\$	\$	\$
	Port Colborne.....	25 00	95 00	95 00	215 00
	11 Bertie.....	25 00	22 50	22 50	70 00
	3 Pelham.....	12 50			12 50
	9 “.....	25 00	22 50	22 50	70 00
	4 Wainfleet.....		45 00	45 00	90 00
	Total.....	137 50	302 50	302 50	742 50
Wellington, N.	Clifford.....	7 50	22 50	22 50	52 50
	Drayton.....	100 00			100 00
	Palmerston.....	100 00	380 00	380 00	860 00
	2 Peel.....	12 50	37 50	37 50	87 50
	7 “.....	7 50			7 50
	16 “.....		22 50	22 50	45 00
	Total.....	227 50	462 50	462 50	1,152 50
Wellington, S.	Drayton.....		380 00	380 00	760 00
	Erin.....	50 00	190 00	190 00	430 00
	Macdonald, Consolidate School, Guelph P.O....	50 00	190 00	190 00	430 00
	4½ Eramosa.....		22 50	22 50	45 00
	8 “.....	7 50			7 50
	9 “.....	7 50	37 50	37 50	82 50
	8 Erin.....		22 50	22 50	45 00
	9 “.....		22 50	22 50	45 00
	7 N. Garafraxa.....		22 50	22 50	45 00
	5 Guelph.....		22 50	22 50	45 00
	4 Nichol.....		37 50	37 50	75 00
	4 Puslinch.....		22 50	22 50	45 00
	8 “.....	7 50	22 50	22 50	52 50
	11 “.....	7 50	22 50	22 50	52 50
	Total.....	130 00	1,015 00	1,015 00	2,160 00
Wentworth ..	11 Ancaster.....	12 50	37 50	37 50	87 50
	3 Barton.....	7 50	95 00	95 00	197 50
	15 Beverley.....	7 50			7 50
	7 W. Flamboro.....		22 50	22 50	45 00
	9 “.....		37 50	37 50	75 00
	3 Saltfleet.....	25 00	95 00	95 00	215 00
	8 “.....	7 50			7 50
	Total.....	60 00	287 50	287 50	635 00
N. York	5 E. Gwillimbury.....	12 50			12 50
	13 “.....	50 00	190 00	190 00	430 00
	14 King.....	50 00	190 00	190 00	430 00
	19 “.....		37 50	37 50	75 00
	23 “.....	7 50			7 50
	Total.....	120 00	417 50	417 50	955 00
S. York	N. Toronto.....	28 75			28 75
	Stouffville.....		37 50	37 50	75 00
	Woodbridge.....	50 00	190 00	190 00	430 00
	1 Etobicoke.....	7 50			7 50
	Total.....	86 25	227 50	227 50	541 25

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Windsor and Walkerville.	Walkerville	\$ 25 00	\$ 37 50	\$ 37 50	\$ 100 00
	Total.....	25 00	37 50	37 50	100 00

Separate Schools.

Inspectorate	Name of School	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Counties.....	Amherstburg	\$ 50 00	\$ 190 00	\$ 190 00	\$ 430 00
	Chesterville	7 50	22 50	22 50	52 50
	Eganville.....	50 00	190 00	190 00	430 00
	Hastings	7 50			7 50
	Tilbury.....		95 00	95 00	190 00
	Wallaceburg.....		37 50	37 50	75 00
	Westport	50 00	190 00	190 00	430 00
	10 Adjala.....	7 50	22 50	22 50	52 50
	2 Ashfield	25 00	95 00	95 00	215 00
	9 Biddulph McGillivray.	7 50			7 50
	14 Carrick.....		22 50	22 50	45 00
	U. 1 Carrick and Culross	12 50			12 50
	5 Clarence		37 50	37 50	75 00
	15 Gloucester	12 50	37 50	37 50	87 50
	12 Hagarty	7 50	22 50	22 50	52 50
	9 Harwich.....	7 50			7 50
	1 Hay		22 50	22 50	45 00
	6 Raleigh.....	7 50			7 50
	5 Sombra.....		22 50	22 50	45 00
	6 Stephen		22 50	22 50	45 00
	1 W. Wawanosh	7 50			7 50
	2 Wolf Island.....	7 50			7 50
	Total.....	267 50	1,030 00	1,030 00	2,327 50
Districts.....	Mattawa.....	25 00	190 00		215 00
	Sudbury.....	15 00	45 00		60 00
	Total.....	40 00	235 00		275 00

LIST OF CONTINUATION CLASSES.—*Continued.*

District Schools

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Thunder Bay & Rainy River		\$	\$	\$	\$
	Fort Frances.....	100 00	380 00	.....	480 00
	Rainy River.....	15 00	45 00	.....	60 00
	1 Keewatin.....	100 00	190 00	.....	290 00
	5 Lash.....	.....	45 00	.....	45 00
	1 Schreiber.....	25 00	75 00	.....	100 00
	Total.....	240 00	735 00	.....	975 00
Algoma	Blind River.....	15 00	75 00	.....	90 00
	Bruce Mines.....	100 00	380 00	.....	480 00
	Massey.....	.....	45 00	.....	45 00
	Thessalon.....	50 00	190 00	.....	240 00
	1 Aberdeen.....	.....	22 50	.....	22 50
	1 Hallam.....	15 00	.....	.....	15 00
	Total.....	180 00	712 50	.....	892 50
Muskoka	Bracebridge.....	200 00	760 00	.....	960 00
	Huntsville.....	100 00	380 00	.....	480 00
	Port Carling.....	15 00	.....	.....	15 00
	Powassan.....	50 00	190 00	.....	240 00
	4 N. Himsworth.....	.....	45 00	.....	45 00
	6 S. ".....	25 00	45 00	.....	70 00
	2 Machar.....	25 00	75 00	.....	100 00
	3 Medora.....	15 00	.....	.....	15 00
	6 Muskoka.....	15 00	.....	.....	15 00
	2 Stephenson.....	25 00	45 00	.....	70 00
	9 ".....	.....	45 00	.....	45 00
	Total.....	470 00	1,585 00	.....	2,055 00
Parry Sound..	Burk's Falls.....	100 00	680 00	.....	780 00
	Parry Sound.....	100 00	760 00	.....	860 00
	Sundridge.....	15 00	75 00	.....	90 00
	U. 1 Chapman.....	.....	45 00	.....	45 00
	2 Christie.....	15 00	.....	.....	15 00
	1 Humphrey.....	.....	45 00	.....	45 00
	6 McKellar.....	15 00	45 00	.....	60 00
	8 Perry.....	15 00	.....	.....	15 00
	Total.....	260 00	1,650 00	.....	1,910 00
Manitoulin ...	Gore Bay.....	100 00	680 00	.....	780 00
	Little Current.....	25 00	490 00	.....	515 00
	2 Assiginack.....	50 00	285 00	.....	335 00
	1 Billings & Allan.....	.....	75 00	.....	75 00
	1 Hilton.....	15 00	75 00	.....	90 00
	2 Howland.....	.....	75 00	.....	75 00
	1 St. Joseph.....	15 00	45 00	.....	60 00
	4 ".....	.....	45 00	.....	45 00
	Total.....	205 00	1,770 00	.....	1,975 00
Nipissing	Cache Bay.....	.....	75 00	.....	75 00
	Copper Cliff.....	15 00	.....	.....	15 00

LIST OF CONTINUATION CLASSES.—*Continued.*

Inspectorate.	Name of School.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
Nipissing.— <i>Continued.</i>		\$	\$	\$	\$
	New Liskeard	880 00	880 00	880 00	880 00
	Sturgeon Falls	25 00	75 00	100 00	100 00
	Sudbury	100 00	380 00	480 00	480 00
	1 Chapleau	75 00	75 00	75 00	75 00
	Total	140 00	1,485 00	1,625 00	1,625 00

Summary of Grants

Inspectorate	Special Legislative Grant 1906	Legislative Grant 1907	County Equiva- lent 1907	Total of Three Grants
	\$	\$	\$	\$
Brant	95 00	235 00	235 00	565 00
Bruce, E.	7 50			7 50
Bruce, W.	300 00	1,187 50	1,187 50	2,675 00
Carleton	662 50	2,935 00	2,935 00	6,532 50
Dufferin	170 00	630 00	630 00	1,430 00
Dundas	157 50	607 50	607 50	1,372 50
Durham	107 50	542 50	542 50	1,192 50
Elgin	272 50	1,082 50	1,082 50	2,437 50
Essex, N.	12 50			12 50
Essex, S.	250 00	1,082 50	1,082 50	2,415 00
Frontenac	22 50	60 00	60 00	142 50
Glengarry	57 50	190 00	190 00	437 50
Grey, E.	32 50	75 00	75 00	182 50
Grey, S.	322 50	1,115 00	1,115 00	2,552 50
Grey, W.	12 50	60 00	60 00	132 50
Haldimand	95 00	345 00	345 00	785 00
Haliburton	15 00	37 50	37 50	90 00
Halton	220 00	1,140 00	1,140 00	2,500 00
Hastings, N.	32 50	95 00	95 00	222 50
Hastings, S.	102 50	265 00	265 00	632 50
Huron, E.	322 50	688 75	688 75	1,700 00
Huron, W.	357 50	1,077 50	1,077 50	2,512 50
Kent, E.	582 50	2,310 00	2,310 00	5,202 50
Kent, W.	420 00	1,235 00	1,235 00	2,890 00
Lambton, E.	162 50	760 00	760 00	1,682 50
Lambton, W.	15 00	210 00	210 00	435 00
Lanark	115 00	425 00	425 00	965 00
Leeds and Grenville, No. 1	70 00	250 00	250 00	570 00
Leeds and Grenville, No. 2	35 00	112 50	112 50	260 00
Leeds and Grenville, No. 3	95 00	535 00	535 00	1,165 00
Lennox and Addington	65 00	280 00	280 00	625 00
Lincoln	7 50	22 50	22 50	52 50
Middlesex, E.	37 50	120 00	120 00	277 50
Middlesex, W.	75 00	230 00	230 00	535 00
Norfolk	35 00	82 50	82 50	200 00
Northumberland	62 50	212 50	212 50	487 50
Ontario, N.	70 00	395 00	395 00	860 00
Ontario, S.	30 00	22 50	22 50	75 00
Oxford	405 00	1,285 00	1,285 00	2,975 00
Peel	50 00	190 00	190 00	430 00

SUMMARY OF GRANTS.—*Concluded.*

Inspectorate.	Special Legislative Grant 1906.	Legislative Grant 1907.	County Equiva- lent 1907.	Total of Three Grants.
	\$	\$	\$	\$
Perth.....	97 50	195 00	195 00	487 50
Peterborough.....	82 50	509 00	509 00	1,100 50
Prescott and Russell.....	40 00	105 00	105 00	250 00
Prince Edward.....	77 50	222 50	222 50	522 50
Renfrew.....	92 50	237 50	237 50	567 50
Simcoe, E.....	107 50	60 00	60 00	227 50
Simcoe, N.....	100 00	537 50	537 50	1,175 00
Simcoe, S. W.....	745 00	3,027 50	3,027 50	6,800 00
Stormont.....	177 50	417 50	417 50	1,012 50
Victoria, E.....	37 50	117 50	117 50	272 50
Victoria, W.....	65 00	227 50	227 50	520 00
Waterloo, No. 1.....	15 00	60 00	60 00	135 00
Waterloo, No. 2.....	32 50	97 50	97 50	227 50
Welland.....	137 50	302 50	302 50	742 50
Wellington, N.....	227 50	462 50	462 50	1,152 50
Wellington, S.....	130 00	1,015 00	1,015 00	2,160 00
Wentworth.....	60 00	287 50	287 50	635 00
York, N.....	120 00	417 50	417 50	955 00
York, S.....	86 25	227 50	227 50	541 25
Windsor and Walkerville.....	25 00	37 50	37 50	100 00
Total.....	8,416 25	30,692 75	30,692 75	69,801 75
Separate Schools.....	307 50	1,265 00	1,030 00	2,602 50
Districts.....	1,495 00	7,937 50	.....	9,432 50
Totals.....	\$10,218 75	39,895 25	31,722 75	81,836 75

FOR CONSIDERATION.

Proposed Course

IN

Elementary Science

FOR

High and Continuation Schools

WARWICK BROS & RUTTER, Limited, Printers,
TORONTO.

ELEMENTARY SCIENCE.

PREFATORY MEMORANDUM.

In the following revised course in Elementary Science the Department of Education seeks to correct the defects which have been found in the present course. It is now placed in the hands of the science teachers of the Province for consideration until the close of next half-year. Since the course is not essentially different from that of 1904, science teachers may, with the consent of the Principal, follow it for the present session.

ZOOLOGY.

A TWO YEARS' COURSE.

General Scope of the Work: In this course in elementary Zoology the two sides of animal study are distinguished and outlined. On the one hand, is prescribed a general laboratory course which embodies the simple morphological study of common forms, representing the chief animal types. On the other hand, an outline of work on the natural history side of the subject is suggested. These are not two distinct courses. It is intended that the work of the laboratory shall be such as to help in the interpretation of the outdoor observations and incite to deeper enquiry; while the studies in natural history will make the indoor study interesting and necessary. The work in natural history will be a logical and safe foundation for the work in science taught through modern laboratory methods.

Outdoor Work: The teacher's immediate responsibility lies in the laboratory work. The outdoor work, which will of necessity vary with the locality, must be carried on to a very large extent without his direct supervision. But the teacher should encourage and direct the pupils, devoting a fair portion of the time of the class to discussions and reports on their independent work. Arrangements should be made for field excursions on suitable occasions.

Selective Studies: The selective studies, appended to the regular work, are intended to be suggestive. In them, is offered freedom to select such topics as time, place, and circumstances may permit the teacher to use.

Indoor Study of Living Animals: The morphological studies in the laboratory are, wherever possible, to be supplemented or preceded by observation on living specimens. For this purpose, provision will be needed for suitable aquaria and vivaria, where the moving, breathing, and feeding of the living animals may be within ready view of the pupils. *Moreover, these morphological studies are not to end in the study of form; behind the observation of the form, there must be a constant effort to interpret the MEANING of the form, to show the relation of form and function.*

School Museum: For progress in the natural history side of the subject collections of specimens of the local fauna will have to be made. The school museum should be a thing of gradual growth, and great care should be taken in the selection of the material. As occasion offers, it should be provided with specimens of local fish, frogs, reptiles, birds, insects, etc.

FIRST YEAR—SEPTEMBER AND OCTOBER.

Laboratory Work.

INVERTEBRATES.—Class study of a grasshopper, a spider, a centipede.

Selective studies: Comparison of a grasshopper with a cricket or cockroach, leading to the recognition of the order Orthoptera; study of a butterfly, a bee, a potato beetle, a house fly, a bug or a dragon fly, as representatives of the other orders; observation of bees in a laboratory bee-hive; instruction in the collecting and mounting of insects.

VERTEBRATES.—*Birds:* Study of external characters of a domestic fowl, pigeon or other common bird; comparison of the bills, wings, legs, and feet of different types of birds.

Selective studies: Structure of feathers; structure of an egg; chief skeletal characteristics of birds; demonstration of viscera; instruction regarding the protection of birds by law.

Outdoor Work.

Observation of the habits and development of the insects studied in the laboratory; preparation of a small collection of insects; how insects visit and use flowers; how spiders weave their webs and secure their food; collection of caterpillars for observation of their metamorphosis during the following winter and spring.

Recognition of the common wild birds of the locality; observation of their habits and of their adaptation to their different modes of living; times and modes of their southward migrations; recognition of the different varieties of pigeons, ducks, geese and chickens that may be seen in the neighborhood or at fall fairs.—*For the Winter:* Observation of the winter birds, their feeding habits, their dangers, their modes of protection.

APRIL, MAY AND JUNE

Laboratory Work.

INVERTEBRATES.—Class study of the mosquito, the fresh water clam or the common garden slug, the earthworm.

VERTEBRATES.—*Fish:* Study of the external characters of a common fish.

Selective studies: Structure of gills and the manner of breathing; microscopic demonstration of the structure of a scale; demonstration of viscera; chief skeletal characteristics.

Amphibians: Study of the external characters of a common frog or the common garden toad; and of the development of the animal from the egg. Economic importance of frogs and toads.

Selective studies: Chief skeletal characteristics; demonstration of the viscera; demonstration of the blood flow in the tail of the tadpole or the web of the frog's foot; estimation of the number of young produced and the proportion that may reach maturity. *Birds:* Demonstration of the first three days' development of a chick embryo.

Outdoor Work.

Observations on the life histories and habits of economic insects, such as those suggested for study in the next term; collections of these insects; observations on the prevalence of mosquito larvæ in wet places and their destruction by kerosene; observation of the means employed by gardeners and others for combating insect pests; examination of spraying appliances; observations on beekeeping and the production of honey.

Observation of the habits of earthworms, such as their appearance after rain, their castings on the garden paths, their depth in the ground in dry weather, their injury to lawns, their destruction by robins.

Recognition of the common fish of the district and observation of their habits; observation of the food fish sold in the local market; methods of rearing fish in government fish hatcheries.

Recognition of the common frogs, tree frogs, toads, and salamanders; observations of their habits and calls.

Observation of spring migrations of birds, and the feeding and nesting habits of summer residents; recognition of bird songs.

SECOND YEAR—SEPTEMBER AND OCTOBER.

Laboratory Work.

INVERTEBRATES.—Class study of examples of such beneficial or injurious insects as may have local interest in affecting field crops, gardens, orchards, forests, cattle or the household.

VERTEBRATES.—*Mammals*: Study of the external characters of a cat, dog or rabbit; comparison of the hair, teeth, feet and locomotion of some typical mammals, such as the squirrel, mole, bat, cow, horse, cat.

Selective studies:—Chief skeletal characteristics of a mammal, such as the cat; recognition and relationship of the larger bones; demonstration of the viscera.

Outdoor Work.

Observation of the conspicuous insect pests of the season, the methods of attack, the injury done by them, the effect of spraying or other treatment; collection of economic insects.

Recognition of habits of our wild and domestic mammals; economic uses of domesticated mammals; recognition of the different breeds of farm animals, horses, cows, sheep, swine; comparison of the different breeds of dogs, cats, rabbits; preparation for winter and winter habits of wild animals found in the district; uses and values of skins and furs.

APRIL, MAY AND JUNE.

Laboratory Work.

INVERTEBRATES.—Class study of a crayfish and a wood louse.

Selective Studies: Other animal forms that have an economic or natural history interest, such as sponge, coral, starfish, or the minute forms found in ponds or stagnant infusions.

VERTEBRATES.—*Reptiles*: Study of the external characters of a snake and a turtle.

The class work of this term will be largely given to reviewing, summarizing, comparing and classifying.

Outdoor Work.

Continuation of the observation of the life and habits of the animals studied previously.

Recognition of the common snakes and turtles or the locality and observation of their habits; how they pass the winter; how the young are hatched.

BOTANY.

A TWO YEARS' COURSE.

Remarks similar to those introducing the course in zoology will apply also to the work in botany. In particular it is urged upon the instructor that he should constantly stimulate the effort to interpret the meaning of the forms under observation—to discover where possible the relation between form and function.

FIRST YEAR.—SEPTEMBER AND OCTOBER.

Laboratory Work.

The Plant as a Whole: A detailed study of some common plant, such as a petunia or a buttercup, taking up the structure and functions of all the parts in succession: root, stem, foliage-leaves, flower leaves, fruit, and seed; the study at this stage to be such as can be carried on with the aid of an ordinary lens.

Fruits: Structure and classification of the simpler fruits, such as pea or bean, shepherd's purse, poppy, apple, tomato, grape, plum, maize or wheat, maple, etc. Adaptations for dispersal of seeds.

Seeds: Practical study of some common seeds, such as pea, bean, morning-glory, representing dicotyledons; maize, wheat, onion, representing monocotyledons; pine or spruce, representing gymnosperms; form, markings, parts and their functions, position of stored food.

Preparation for Winter: Annuals (including winter annuals, such as winter wheat), biennials, perennials. Storage of reserve food in root, stem, leaf and seed. Study of winter buds, their arrangement, structure, and means of protection. The fall of fruit and leaf. Interpretation of marks on trees and shrubs.

Outdoor Work.

Recognition of common annuals, winter annuals, biennials and perennials of the garden and the field. Observation of winter buds, of change in color, and of time of falling of leaves of trees and shrubs. Study of marks on trees and shrubs. Collections of common flowering plants, weeds, and weed seeds to be begun.

APRIL, MAY AND JUNE.

Laboratory Work.

Study of Spring Flowers: Plant-description and identification by means of a flora; relation of flower-structure to mode of pollination; meaning and significance of cross-pollination.

Germination of Seeds: Simple experiments to illustrate the more important phenomena and requirements of germination and growth, e.g., need of air, warmth, and moisture; evolution of carbon dioxide; how and to what extent water is absorbed; germinating power.

Artificial Plant Propagation: Cuttings, layering, budding, grafting.

Roots: Varieties of root-forms; root-hairs; root-cap; region of growth.

Stems: Expanding of winter buds; varieties of stem-forms: erect, prostrate, climbing, twining, subterranean, aquatic; adaptation of form to habit. Spines, prickles, tendrils; their forms and uses. Stem-structure in dicotyledons and monocotyledons.

Foliage-Leaves: General structure, including epidermis, stomata, chlorophyll, veins. Protective structures, such as hairs, waxy coatings, etc. Form and arrangement of leaves in relation to sunlight and shedding of rain. Sleep-movements.

NOTE.—*The preceding work on roots, stems, and leaves may be taken up incidentally in connection with the study of spring flowers.*

Outdoor Work.

Observation and recording of the time of leafing and of flowering of common wild and cultivated plants. Habitats of spring-flowering plants; conditions governing growth; insect visitors; methods of pollination. Observation of opening and closing of flowers as shown by dandelion, tulip, hepatica, etc. Time of sowing and rate of germination of garden and farm seeds. Mode of climbing of such plants as sweet pea, morning-glory, grape, Boston ivy, Virginia creeper, hop, galium, clematis, etc. Leaf-arrangement to secure best exposure to light and to shed rain. Diurnal and nocturnal positions of leaves, such as those of clover, honey-locust, oxalis (so-called shamrock), etc. Collections begun in the autumn to be continued.

SECOND YEAR.—SEPTEMBER AND OCTOBER.

Laboratory Work.

Composites: Study of typical composites, such as dandelion, burdock, and ox-eye daisy.

Weeds: Identification of common forms; their seeds; how they spread; and how they may be controlled.

Fungi: Recognition and mode of life of mushroom, puff-ball, polypore, as saprophytic forms; and apple scab, lilac mildew, wheat rust, black knot, or other common type, as a parasitic form.

Physiological Experiments: *Roots*. Simple experiments to illustrate root-functions, *e.g.*, absorption by osmosis, growth towards moisture. *Soils*. Soluble and insoluble materials in soils, and importance of each to the plant; simple experiments in illustration. *Stems*. Simple experiments to illustrate stem-functions, *e.g.*, conduction of cell-sap, heliotropism, rotation of the end of the stem in twiners and climbers. *Foliage-leaves*. Simple experiments to illustrate leaf-functions, *e.g.*, transpiration, manufacture of starch in sunlight, disappearance of starch in darkness, exhalation of a gas by green water-plants in sunlight, exhalation of carbon dioxide.

Outdoor Work.

Recognition and collection of autumn-flowering plants. Collection and recognition of weed seeds in grain screenings. Observation of injurious effects of parasitic fungi, as seen in the rotting, etc., of fruits, such as apples, grapes, plums, etc.

APRIL, MAY AND JUNE.

Laboratory Work.

Trees: Common orchard and forest trees; modes of branching; identification by leaves, bark, wood; uses. Special study of the conifers: the bud, leaf, and flower.

Flower Study Continued: Identification of cultivated and wild spring flowers. Study of a common grass, such as orchard-grass, Indian corn, or wheat.

Ferns: General structure and habits of a common fern.

Economic Products: Summary of economic uses of plants: for timber, food, clothing, decoration, medicine, etc.

Review: General view and comparison of the characteristics of the larger groups of plants taken up in the course, summarizing and classifying.

Outdoor Work.

Observations on plant-societies: plants of the forest, the meadow, the roadside, the pond, the marsh, the garden (weeds), the rocks, noting adaptations to environment. Observation of nodules on the roots of leguminous plants, and enrichment of the soil thereby. Observations of imported and domestic economic plant-products in market, store, and factory.

Collections to be continued.

PHYSICS AND CHEMISTRY.

A TWO YEARS' COURSE.

PHYSICS.

Introductory: Measurement in Metrical and English units of length, area, volume, and mass; structure and use of the Balance.

The Three States of Matter: Defined and explained, Molecular Theory.

Mechanics: The principle of the mechanical powers, especially the lever, the screw, the pulley, and the wheel and axle, with some of their more important simple applications.

Hydrostatics: Pascal's Law, statement and verification, some of its more important applications; pressure of liquids in its relation to direction, depth; density of liquid, area pressed, and shape of containing vessel; Archimedes principle; specific gravity, common methods of finding specific gravities of solids, liquids, and gases.

Pneumatics: Study of the properties of a gas as exhibited in air as a type; proof that air has weight, occupies space, and exerts pressure; construction of the barometer; the relation between the volume and pressure of a gas; proof of Boyle's Law; practical applications of air pressure, air-pump, common pump, siphon, air-brakes, air-tools; meaning of wind pressure; some of the more important applications of wind pressure.

Heat: Nature and source of heat; experiment to illustrate the expansion of solids, liquids, and gases by heat; some practical applications of the principle of expansion; the anomalous expansion of water, its significance.

Thermometry: Meaning of temperature, construction of mercury thermometer, graduation of the thermometer in the centigrade and the Fahrenheit scales, meaning of absolute temperature; laws of fusion; laws of boiling; evaporation and dew point; the effects of large bodies of water on climate; meaning of specific heat; latent heat of fusion; latent heat of vaporization; latent heat as affecting climate; brief description of the working of the steam engine; heating and ventilation by stoves, hot air furnaces, hot water, and steam.

Sound: Nature and propagation of sound; pitch of sound; consonance and resonance; string musical instruments, wind musical instruments; reflection of sound, echoes.

Light: Nature and propagation of light; simple experiments illustrating the reflection and refraction of light; dispersion of light; color of bodies.

Magnetism and Electricity: Magnets; laws of magnetic attraction and repulsion; polarity; magnetic induction; terrestrial magnetism; construction of simple voltaic cell; decomposition of water by electricity; electro-magnet, telephone, telegraph, and electric bell; heating and lighting effects of the current; simple experiments to illustrate the principle of electric lighting; simple experiments to illustrate the principle of the dynamo and motor.

CHEMISTRY.

A study of air and its constituents, a study of water and its constituents, a study of limestone and its decomposition—products, quicklime and carbon dioxide. Mixture, chemical compound, element, physical and chemical change.

Optional.

(When more than the minimum of time is provided).

Heat: The measurement of quantity of heat; finding the specific heat of solids and liquids; finding the latent heat of fusion and latent heat of vaporization.

Light: Verification of law of inverse squares; measurement of candle-power of radiants with photometer; position and character of images formed by plane and spherical mirrors; position and character of images formed by spherical lenses.

Electricity: Simple experiments in electrical measurements; fuller and more exact description of the more important applications of the electric current.

EXTRACT FROM CIRCULAR No. 9, JULY, 1908.

The minimum time prescribed for Elementary Science shall be:—

(a) For Biology, a lesson in each year of the Lower School, of thirty minutes every day during the months of September and October and from the beginning of April to the end of June; or the equivalent thereof.

(b) For Physics and Chemistry, a lesson, in each year of the Lower School, of thirty minutes three times a week, or the equivalent thereof, during the rest of the school year.

The courses in Botany, Zoology, Physics, and Chemistry shall be taken up practically throughout. A recent investigation among the prospective teachers in the Faculties of Education and the Normal Schools has revealed an unsatisfactory condition of affairs in the matter of practical work in Science done by the pupils, especially in Physics, in all the forms of a very large number of the High and Continuation Schools and Collegiate Institutes of the Province. Regulation 2 (2), (b) of Circular 19, Oct., 1907, provides that the official form of application for admission to the Entrance Examination of any of the professional training schools shall include a certificate signed by the Principal that the candidate has taken up practically the course in Science. It is the duty of each School Board to provide adequate equipment and accommodations and of the Science Master to comply with the foregoing requirements. Without these, the Principal cannot give the certificate.

EDUCATION DEPARTMENT,
October, 1908.

SYLLABUS
OF
Regulations and Courses
FOR
The Normal Schools
AT
Hamilton, London, North Bay, Ottawa,
Peterborough, Stratford, and Toronto.

SESSION 1909-1910.



TORONTO:
Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.
1909.

WARWICK BRO'S & RUTTER, Limited, Printers
TORONTO.

The Normal Schools of Ontario 1909-1910.

LOCATION AND PURPOSE.

1.—(1) The Normal Schools are situated at Hamilton, London, North Bay, Ottawa, Peterborough, Stratford, and Toronto.

(2) The purpose of the Normal Schools is to prepare teachers of the Second Class, in the theory and the art of organizing, governing, and instructing the pupils of the Public and the Separate Schools; and to improve the general culture of such teachers and, in particular, their academic preparation for teaching the subjects prescribed in the programme of studies.

NOTE.—In addition to the work prescribed for the other Normal Schools, the School at North Bay will prepare teachers-in-training for Third Class Certificates. For this School a special announcement will be made.

(3) The Normal Model Schools, the Model attached Public Schools, and the attached Rural Schools, are used, as required, to afford the teachers-in-training adequate means of observing well-conducted Schools, and of securing practice in teaching, discipline, and management.

GRADES OF TEACHERS-IN-TRAINING.

2. There shall be two grades of teachers-in-training :

GRADE A.—Those who hold professional Third Class certificates with at least Junior Teachers' academic standing and have taught successfully a Public or a Separate School for one year, or for six months under the supervision of the Inspector of a city where there has been a Model School.

GRADE B.—All others who hold Junior or Senior Teachers' academic certificates or who have passed the full examinations for Entrance to the Faculties of Education or to the Normal Schools.

SESSIONS AND VACATIONS.

3. (1) The session of the Normal Schools will begin and end as follows :

(a) For all applicants who are required to pass the September examinations in the prescribed Lower School subjects it will begin on Tuesday, September 21st, at 9 a.m.

(b) For applicants with the prescribed certificates from Approved Schools and for applicants belonging to Grade A., it will begin on Monday, September 27th, at 9 a.m.

(c) For teachers-in-training belonging to Grade A., who may qualify at Easter for Second Class Certificates, it will end at a date to be fixed hereafter.

(d) For all other teachers-in-training it will end on Friday, June 17th.

(2) There shall be two vacations as follows :

(a) At Christmas, beginning on December 18th, 1909, and ending on January 4th, 1910.

(b) At Easter, beginning on the Thursday before Good Friday and ending on the Monday following Easter Monday.

CONDITIONS OF ADMISSION.

APPLICATION TO THE DEPUTY MINISTER.

4. (1) Application for admission shall be made to the Deputy Minister not later than Tuesday, September 7th, on a form to be supplied by him.

(2) Candidates who have appealed against the results of the July examination should apply for admission as above. If their appeals are successful they will be admitted on the same terms as other applicants.

APPLICATION TO THE PRINCIPAL.

5. In addition to the card of admission from the Deputy Minister, each applicant, on presenting himself at a Normal School, shall submit to the Principal thereof :

(1) A certificate from competent authority that he was at least eighteen years of age before September 1st, 1909.

(2) A certificate from a clergyman or other competent authority that he is of good moral character ;

(3) A certificate on the official form, from a physician, that he is physically able for the work of a teacher, and, especially, that he is free from serious pulmonary affection and from seriously defective eyesight or hearing.

(4) One of the following :

(a) A professional certificate and a certificate of successful experience from an inspector, entitling the applicant to become a member of Grade A ;

(b) A full Junior or Senior Teacher's Academic certificate ;

(c) Until 1910, a certificate of having passed the July academic examination for Entrance into a Faculty of Education.

(d) A certificate of having passed the July academic examination for Entrance into the Normal Schools, having endorsed thereon the prescribed certificate from the Principal of an Approved School that the applicant has completed satisfactorily the Lower School subjects of the High School course prescribed for entrance into the Normal Schools.

(5) Other applicants than those holding the qualifications prescribed in (4) above, shall present, besides the certificates required in (1), (2) and (3) above, a certificate of having passed the July academic examination, and shall pass in addition at the Normal School an examination in the prescribed subjects of the High School Lower School in accordance with the following time-table, the pass standard being 40 per cent. of the marks for each subject and 60 per cent. of the aggregate.

TIME-TABLE.

Tuesday, 21st September.

A.M....9—10.30.....	Presentation of cards of admission and of the prescribed certificates.
10.30—12.....	Writing, Book-keeping, and Business Papers.
P.M....1.30—2.30...	Spelling.
2.30—4.10...	Geography.

Wednesday, 22nd September.

A.M....9—11.....	English Grammar.
11—12.....	Oral Reading.
P.M....2—4.....	Biology (Written and Practical examinations).

Thursday, 23rd September.

A.M....9—11.....	Arithmetic and Mensuration.
11—12.....	Oral Reading.
P.M....2—4.....	Art (Pencil and Brush Work).

For the examination in Art, candidates must come provided with drawing pencils, brushes, and colour boxes; and for the examination in Biology, with a penknife, one or two dissecting needles and a magnifying lens.

Candidates are hereby notified that they must present themselves at the dates prescribed in paragraph 3 (1), and comply fully with the conditions prescribed in paragraphs 4 and 5.

DUTIES OF PRINCIPALS AND ASSISTANTS.

6. (1) Subject to the regulations and to the approval of the Minister of Education, the Principal of each Normal School shall prescribe the duties of his staff and shall be responsible for the efficiency of the Normal and the Model School.

(2) The other members of each staff shall be subject to the authority of the Principal.

(3) Subject to the direction of the Inspector of Normal Schools, each Normal School Master, in company with the Public School Inspector, shall visit each year the Rural Schools in the district in which the Normal School is situated. He shall submit a report of his observations for the consideration of the whole staff of the Normal School.

(4) Each Principal shall submit to the Minister of Education, not later than Dec. 31st of each year, a report in detail upon the character of the preparation of the teachers-in-training in attendance who have been admitted on certificate from the Principal of each Approved School.

(5) Subject to the direction of the Inspector of Normal Schools, each member of the Normal School staff shall take part in the work of the Teachers' Institutes at such dates as the Inspector may arrange.

DUTIES OF TEACHERS IN TRAINING.

7.—(1) Teachers-in-training shall board and lodge at such houses only as are approved of by the Principal.

(2) They shall attend regularly and punctually, and shall submit to such discipline and directions as the Principal may prescribe.

(3) Teachers-in-training who, in the opinion of the staff, are unduly defective in scholarship, or whose conduct or progress is unsatisfactory, may be dismissed by the Principal at any time during the session from further attendance at the Normal School.

(4) All applicants are strongly advised to review carefully before entering, the work of the Lower School of the High Schools.

TEXT BOOKS.

8.—(1) The text-books for the academic work shall be those prescribed in such subjects for the High Schools.

(2) The text-books for the professional work shall be those prescribed for the Public Schools, and those printed below in italics.

LIBRARY.

9. Under the direction of the different members of the staff, the Library shall be constantly used for consultation by the teachers-in-training. To this end it contains a supply of books of general literature, and a sufficient number of copies of each of the most important professional books of reference, a list of which is given in this Syllabus.

LITERARY SOCIETY.

10. A Literary Society for general culture and for professional advancement shall be established in each Normal School, and shall be fostered by the staff as an important part of the Course of study. It should begin immediately after the work of organization has been completed, and should meet once each week until the special preparation for the final examination begins. The programmes should include essays, debates, recitations, and the reproduction of suitable scenes from standard plays. Suitable lecture courses also will be arranged for under the direction of the Minister of Education.

EXAMINATIONS.

SUBJECTS AND VALUES.

11.—(1) (a) The final standing of the teacher-in-training shall be determined on the combined results of his sessional records and his prescribed examinations.

(b) In addition to oral and written class tests in each subject, and the Observation and Practice-teaching records, there shall be a written examination in the subjects of Groups I. and II. below, immediately before the Christmas vacation.

(c) There shall be two Final written examinations, one at Easter for the teachers-in-training belonging to Grade A.; and one at the close of the Session in June for the teachers-in-training belonging to Grade B., and for those of Grade A. who fail to qualify at Easter or who postpone their examination.

(d) Each of the Easter and June examinations shall be based on the work preceding it. The final examination papers in Groups I. and II. shall be uniform for all the Normal Schools, and shall be based upon the courses as laid down in this Syllabus.

(e) The examinations in Groups II. and III. shall be based on the courses as laid down in this Syllabus, and shall include a thorough test of the academic qualifications of the teacher-in-training for teaching all grades of Public School work.

(2) At each examination in Groups I. and II. there shall be one paper on each of the following subjects and the maximum marks for each subject shall be as follows; the marks for the Christmas Examination and for the Sessional Records in each subject being 40 per cent. of the maximum :

Group I.

Professional. Science of Education, 300; History of Education, 200; School Organization and Management, 200.

Group II.

Academic and Professional. Arithmetic, Algebra and Geometry, Literature, Grammar, History, Composition, Geography, and Nature Study and Elementary Science, each 150.

Group III.

(3) The marks counted in estimating the final standing of the teacher-in-training in the following subjects shall be those awarded him during the session, more especially towards the close thereof, for the oral, written, and practical tests in matter and, where applicable, in method, the maximum for each subject being as follows :—

Academic and Professional. Art, Music, Reading, Spelling, and Writing and Book-keeping, each 100; Manual Training, Household Science, Physical Training, and Physiology and Hygiene, each 75; Manners, and School Law and Regulations, each 50.

Group IV.

(4) The marks counted in estimating the final standing of the teacher-in-training in Observation and Practice-teaching shall be those awarded him in these subjects during the session and more especially towards the close thereof, after an introductory course of lessons in each. The maximum marks for Practice-teaching shall be 1,200, and those for Observation lessons 200.

CERTIFICATES.

12.—(1) (a) A teacher-in-training belonging to Grade A, who, at the Easter or the June final examinations, obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate of the marks for each of Groups I., II., III., and IV., may on the recommendation of the staff, be awarded a permanent Second Class certificate, provided he ; then twenty-one years of age, or an Interim certificate valid until he reaches that age, when a permanent certificate may be issued on application.

(2) A teacher-in-training belonging to Grade B, who at the June final examination obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate of the marks for each of Groups I., II., III., and IV., may on the recommendation of the staff be awarded an Interim Second Class certificate, which will be made permanent at the end of two years' successful experience duly certified on an official form by the Inspector concerned, provided the teacher is then twenty-one years of age. An Interim Second Class certificate which expires before the teacher is twenty-one years of age may be renewed until that date, on the recommendation of the Inspector concerned.

(3) (a) A teacher-in-training who at the June final examinations fails to obtain a Second Class certificate but who makes at least 60 per cent in Group IV., and 35 per cent. of the marks in each subject and 55 per cent. of the aggregate of the marks in each of Groups I., II., and III., may on the recommendation of the staff be awarded a Third Class Certificate valid for one year.

(b) Such teacher-in-training who at the following Easter or June examination passes at one examination, in the Group or Groups in which he failed may be awarded an Interim Second Class certificate on the conditions prescribed in (2) immediately preceding.

(4) All other teachers-in-training shall be required to attend a second session.

(5) Candidates who are exempt from attendance at a Normal School and who are actually engaged in teaching, may take Groups I., II., and III., at the same examination or at different examinations, and shall be exempt from an examination in Group IV., provided they submit to the Minister a certificate from their last Inspector that they have taught successfully. The pass standard shall be 40 per cent. of the marks for each subject and 60 per cent. of the aggregate of the aggregate of marks for each of Groups I., II., and III.

PROGRAMME OF STUDIES

AT THE ONTARIO AGRICULTURAL COLLEGE, GUELPH.

13.—(1) Beginning in April at a date to be settled, a course of about ten weeks will be provided at the Ontario Agricultural College, Guelph, in Elementary Agriculture and Horticulture and in Elementary Industrial Training, with concurrent discussion of methods, supplementary to the courses in these subjects in the Normal Schools, for teachers-in-training who pass the April examination for Second Class certificates. The object of the course is to provide duly qualified teachers for the Public and Separate Schools in—

(a) Elementary Agriculture and Horticulture; and

(b) Elementary Industrial Training.

(2) The above courses at the Agricultural College are optional, and teachers-in-training may take either, but not both.

NOTE.—A circular containing the details of the courses and the regulations connected therewith may be obtained on application to the Principal.

AT THE NORMAL SCHOOLS.

14.—(1) The courses at the Normal School shall consist of the following:

(a) A review of the Public School course and of the academic subjects prescribed for admission into the Normal Schools, especially those of the Lower School, from the standpoint of pedagogy and the requirements of the Public and Separate Schools, with such an extension of said subjects for the purpose of culture as time will permit; also special instruction in Reading, Writing, Art, Physical Training, Physiology and Hygiene, Music, Household Science, Manual Training, Manners, School Law and Regulations.

(b) The Science of Education, including Applied Psychology and Ethics, Child Study, and General Methodology; the History of Education; Special Methodology; and School Organization and Management.

(c) Supervised Observation in the Model Schools, also in the affiliated Rural Schools of the adjoining county or counties.

(d) Supervised Practice teaching in the Model Schools.

2. For teachers-in-training of both Grades A. and B. the main details of the courses shall be the same. The provision in Reg. 15 below refers to grade B. The courses for Grade A. shall be more intensive than those for Grade B.

Teachers-in-training belonging to Grade A will be assumed to have made themselves familiar with Bett's "The Mind and its Education," and McMurray's "The Method of the Recitation," before entering the Normal School.

ORDER OF THE COURSES.

INTRODUCTORY.

15.—(1) In order that the teacher-in-training may begin early the Observation work and the Practice-teaching, the following introductory courses shall be taken up in the following order, having due regard to the requirements of Grades A. and B. respectively:

(a) The introduction to the Science of Education (p. 12), and those parts of the Applied Psychology, and Child Study which bear most directly upon General Methodology, the prime essentials of which shall be discussed in this connection. To this course shall be added a discussion of the functional value of each of the Normal School courses.

(b) A course of Observation in the different forms of the Model Schools.

One lesson a day shall be given in the course in (a); the total number being about twenty-five; and the number of introductory Observation lessons not exceeding ten.

SESSIONAL.

(2) To prevent the dissipation of energy which would result from the concurrent study of a large number of subjects diverse in content, the system of intensive study should be followed so far as the special qualifications of the members of the staff will permit. In the order of the

courses and the grouping of the subjects, due regard should be had to the character of each subject and its natural relations, and to the logical development of the courses and their relative functional value in the pedagogy of the Public School programme. When a subject has been finished, it should from time to time be reviewed with a further extension of the most important parts, having due regard to its character and importance.

(a) On the professional side, after the completion of the Introductory Course [15 (1)], the course in the Science of Education should be taken up three times a week until finished. The course in School Organization and Management should be taken up from the first three times a week until finished. The History of Education should not be taken up until after Christmas.

(b) The total number of periods for each of the professional subjects should be as nearly as practicable as follows:

The Science of Education, including the Introductory course, 70; School Organization and Management, 60; the History of Education, 32; Manners, and School Law and Regulations, 10.

(c) The number of lessons per week for each of the professional and academic subjects shall be, as nearly as practicable, as follows: Mathematics, 3; English (Grammar, Literature, History, Language and Composition, Spelling, and Reading), 7; Science (Physics, Chemistry, Biology, Geography, and Physiology and Hygiene), 5; Art, 2; Music, 2; Manual Training, $1\frac{1}{2}$; Physical Training, 1; Writing and Book-keeping, 1; Domestic Science, $1\frac{1}{2}$; Literary Society, 1; Observation and Practice-teaching (minimum), 4; Religious Instruction, 1.

(3) The foregoing principles of selection and order should also be observed in the Special Methodology and the academic treatment of the other subjects of the course:

(a) In the Mathematical group, Arithmetic should be taken up before Algebra and Geometry, being taken three times a week for about the first five months. It should then be continued with one lesson a week to the end of the session, the other two periods being given to Algebra and Geometry.

(b) The subjects of the groups, Geography and History; Language, Grammar, and Composition; and Phonics, Voice Culture, and Reading should respectively be related in organization as are the subjects of the mathematical group; Geography, Language and Grammar, and Phonics and Voice Culture preceding in their respective groups.

(c) In the Science group, the Biological side should be given special attention during the Autumn and the Spring, and the Science subjects should be taken up first from the Nature Study point of view. On account of their relations to parts of the courses in Art, Domestic Science, and School Management, suitable introductory courses bearing directly on these subjects should be provided in Chemistry and Physics. So, too, on account of its basal relations to Psychology, Physical Training, Music, and School Management, the course in Physiology should be taken up at the beginning and completed as soon as practicable.

(d) The courses in Music, Art, Writing, Physical Training, Literature, Manual Training, and Domestic Science should continue throughout the session.

(e) Short courses should be provided at the beginning of the session in Spelling and Manners; and, towards the close, in School Law and Regulations.

OBSERVATION AND PRACTICE TEACHING.

16.—(1) The Introductory Courses provided for in Regulation 15 shall be followed by systematic Observation and Practice-teaching, the minimum number of Observation lessons being 40 and of Practice-teaching lessons 25, but these numbers shall be increased to meet the necessities of individual teachers-in-training.

(2) (a) The teachers-in-training shall be divided into suitable groups, and the work of Observation and Practice-teaching shall be taken up systematically per time-table arranged from time to time.

(b) At least that group to which the teacher-in-training belongs shall be present at the discussions on his Observation and Practice-teaching lessons.

(3) (a) The Observation and Practice-teaching lessons for each teacher-in-training shall, as far as practicable, be arranged so as to cover the work of the Public Schools in all subjects and in all grades.

(b) The Observation and Practice-teaching lessons provided for in the logical development of the Normal School course shall be supplemented by other lessons in such forms of the Model School as may be available.

(c) Continuous practice-teaching for several periods towards the end of the course shall be required, the teacher-in-training being wholly responsible for the discipline of the class.

(d) Teachers-in-training shall be available as substitutes in the Public or Separate Schools of the locality (urban or rural) in which the Normal School is situated, subject to arrangement with the Principal of the Normal School.

(4) (a) Teachers-in-training shall be notified by the Principal, of the subject and the scope of the Observation lesson, and shall prepare the lesson beforehand.

(b) After observing the lesson, they shall submit a report upon it to the Model School teacher concerned.

(5) (a) Teachers-in-training shall be notified of the subject and the scope of the Practice-teaching lesson, by the Model School teacher after consultation with the Normal School Master concerned.

(b) Teachers-in-training shall prepare a plan of each Practice-teaching lesson for submission to the Model School teacher concerned.

(6) (a) Model lessons shall be taught by the teachers of the Model School in accordance with the regular programme of the Model School.

(b) The Normal School masters in charge of the academic work in a subject shall develop its details in their teaching order, and after each suitable step, shall also themselves teach model lessons in special Public School classes in the Normal School and in the Model School itself. At these lessons, the Model School teacher in charge of the subject shall be present.

(7) (a) The necessary applications of the Science of Education and of Special Methodology shall be made systematically by both the Normal School Masters and the Model School teachers in connection with the Model and the Observation lessons and the Practice-teach-

ing; so that the course may be taken up in terms of the child's mind and growth. From time to time the Master in charge of the Science of Education should formally illustrate by actual teaching the principles he has discussed in class.

(b) As far as practicable, it shall be the duty of the members of both the Normal School and the Model School staffs, in accordance with the time-table, to be present at the Observation lessons and Practice-teaching of the teacher-in-training and to make jointly the criticism and the valuation of his work.

(8) Concerted work on the part of the Normal and the Model School shall be secured by frequent conferences of the staffs of both schools, especially at the beginning of the session.

DETAILS OF COURSES.

SCIENCE OF EDUCATION.

17. The object of the course in the Science of Education is to provide the teacher with a working conception of the nature of education which will be useful to him in forming ideals and determining procedure, to give him a rational basis for intelligently evaluating and selecting subject-matter and methods of instruction, and to improve natural tact and skill through the acquisition of experience, with the least expenditure of time and energy. The course, which shall be as *practical* as possible, includes Applied Psychology, Child Study, and General Methodology.

I. Introduction.

18. *The Aim of Education*: Provisional statement of the aim of education to be used as a working definition.

Function of the School: Function of the school in directing the development of the child's experiences during the plastic period; relation of the school to other social institutions, the home, the church, the state, the vocation.

Subjects of Study: School studies as typical forms of experience that the race has found valuable in meeting its needs; basis for determining the functional value of a subject in a course of study.

Methods of Instruction: The purpose of method; necessity for basing methods of instruction on a knowledge of the characteristics and the conditions of mental life; the problem of method a psychological problem. A preliminary outline of the general principles of method.

BOOKS OF REFERENCE:—

McMurry: *The Method of the Recitation.* 75 cts.

Bagley: *The Educative Process.*

II. Applied Psychology.

19. *Problems and Methods of Psychology*: The subject-matter of psychology; the essential characteristics of mental life; contrast between mental and physical phenomena; "stream of consciousness" and its "contents"; knowing, feeling, and willing; their interdependence.

Methods of studying the facts of mental life; the meaning of introspection; the limitations of introspective methods; methods of observing and interpreting the expressive signs of mental life; the attitude of the teacher as an observer; the place of experimental methods.

Nervous System and Mental States: Body and Mind, general nature of their connection; illustrations to show that mental life is dependent on physical conditions; outline study of the structure and functions of the nervous system in so far as it is related to mental processes; relation of mental growth to the development of the nervous system; conditions of sensory and motor development, development of the nerve centres through natural growth and through use; effects of disuse on nerve cells; connection between sensory and motor action; development of nerve connections; the "reflex arc"; automatic and reflex acts; the process of the growth of motor control; importance of a knowledge of the growth of the nervous system to the teacher.

Instincts: The place of natural tendencies in the development of mental life; the nature of instincts; outline study of some of the more important human instincts; transitory character of many instincts; necessity for utilizing instinctive tendencies at the time of their appearance; the adaptation of the subject-matter of instruction to the stage of natural development of the child; the dangers of introducing subjects too soon or too late; useful and injurious instincts; methods of strengthening and modifying instincts through use, and of weakening or eliminating them through disuse, substitution or repression; transformation of instincts into habits.

Habit: Nature of habit; physical basis of habit; the functions and limitations of habit; the dangers of mental "fossilization"; the relation of habit formation to school studies, especially those involving the acquisition of skill, such as writing, reading, manual training, art, etc.; pedagogical rules for the formation of new habits or the breaking up of old ones.

Interests: The nature of interests; interests as tendencies to thought and action.

Interests as an end to be sought in education; the importance of the cultivation of desirable and the suppression of undesirable tendencies; instinctive interests; a classification of the more common instinctive interests; the relation of acquired to instinctive interests; the reciprocal character of knowledge and interest.

Interest as a means in education; tendencies as the starting points in acquisition of knowledge or the formation of habits of action; practical teaching rules for applying the principle of interest in gaining knowledge; the relation of interest to effort; distinction between the interesting and the easy, and between the interesting and the pleasurable.

Capacities and Activities: Examination of some of the more fundamental capacities:

Sensitivity: The relation of sense impressions to the growth of knowledge. Retentiveness: The importance of retention in the growth of experience; conditions of retention. Relating activity: First steps in thinking; dissociation, discrimination, and association as activities;

learning as an analytic-synthetic process. Expression: Process of giving significance to motor movements; relation of impression to expression.

The development of capacities through experience; the place of formal discipline as an end in education.

Apperception: Mental states or acts as dependent on original tendencies and previous experience; the development of mental life as conditioned on the interaction of the "old" and the "new"; learning as the development of experience into experience; necessity for making experiences meaningful; the process of interpreting the new in terms of the old; the meaning of "apperceptive systems"; the necessity for studying the child's tendencies and capacities in selecting and presenting the subject-matter of instruction; the utilizing of the contents of pupils' experience; significance of the pedagogical maxim, "proceed from the known to the related unknown"; "preparation" as a formal step in method; laws of mental assimilation.

Attention: The nature of attention; the selective character of attention; meaning of concentration of attention, dispersed attention and inattention; conditions of non-voluntary, or spontaneous attention; interests as tendencies to attention along particular lines; the relation of habit to attention; methods and devices for securing spontaneous attention through interest; the conditions of voluntary attention; growth of purpose and plans from natural interests; the importance of an aim on the part of the learner; the development of aims and ideals as an end in education; methods of securing voluntary attention; the application of the law of derived interest to school studies; punishments and rewards as incentives to attention; the relation of voluntary to non-voluntary attention; gaining and holding attention; physical conditions favourable and unfavourable to attention.

Sensation and Perception: Sensation as a mental process; the physical conditions of sensation; classification of sensations; sensation qualities; the nature of perception; the presented and reproduced factors in perception; the functions of sensation and perception as forming the basis for thought; the development of perception; the growth of percepts in richness and definiteness through the detection of new features connected with old things; the meaning of observation; the relation of observation to alertness and keenness of sense activity and to knowledge, interests and purposes; methods of cultivating habits of observation; nature and functions of objective teaching; limitations of objective teaching; means of objective teaching; the rules for the conduct of school excursions and the use of museum collections, pictures, models, etc.

Imagination: Relation of imagery to sensory experiences; the function of imagery in interpreting the present by the past and in forming aims, purposes, and plans; power of imagery as varying in different people; types of imagery; the reconstruction of images; reproductive and productive imagination; their relation to each other; simultaneous association of images, as in perception; successive association of images in the train of thought; laws of association; physical basis of association; training the imagination as involving the storing of the mind with a rich stock of usable images and giving facility and

dexterity in grouping images into new wholes for the sake of a definite purpose; school studies and activities as a means of training the imagination; study of children for the purpose of determining the "mind stuff" in which they think.

Memory: The characteristic features of memory; the relation of memory to reproductive imagination; retention, recall and recognition as factors in memory; characteristics of a good memory; recency, vividness, frequency and association as factors in efficient recall; training of memory; cultivation of memory as improvement in methods of recording facts; methods of securing vividness of original impression; relation of attention to retention; rules for proper use of repetition; the function of the drill lesson; methods of securing association and organization; the function of the review lesson; methods of conducting the review lesson; cramming and its effects.

Thinking: The importance of consciousness of meaning in the development of mental life; meaning dependent on relations; thinking as the process of grasping relations; thinking of the child and the adult compared; analysis of conceptional thinking; nature and growth of a concept; the place of the image in conception; the relation of conception to language; judgment as a phase of thinking; sound judgment as an end in education; reasoning as purposive thinking; deductive reasoning; inductive reasoning; the interrelation of induction and deduction; principles involved in training in thinking; school studies as a means of training in thinking; inductive methods of teaching; "presentation," "comparison and abstraction," "generalization" and "application" as formal steps of instruction; use of types in inductive methods; deductive methods of teaching; the relation of the data, the principles, the inference, and the verification in the deductive lesson.

Feeling and Emotion: Various uses of the term feeling; feeling as the tone of a conscious state; qualities of feeling; relation of feeling to cognition and to motor reaction; nature of emotion; relation of emotion to instinct and to feeling; conditions upon which the appearance of emotion depends; functions of feeling and emotion, their influences on attention, judgment and effort; outline study of some of the more significant emotions; directions along which emotional development should take place; place of habit in emotional development, the growth of moods, sentiments, temperaments, and dispositions; significance of school studies and activities in the growth of feeling and emotion.

Will: Involuntary and voluntary action compared: reflex action, instinctive action and ideomotor action; a voluntary act as the attentive selection of one way of action as against another; the place of deliberation, effort and choice in a voluntary act; factors in a well-balanced will; study of volitional types which vary from the normal, such as, the impulsive type and the obstructed will; relation of involuntary action to voluntary in the training of the will; methods of developing normal will through the activities of the school and the home; methods of dealing with abnormal types of will; education in its relation to conduct; elements involved in moral training; the function of the school in moral training; effects of methods of instruction on morals; moral effects of school studies; value of specific moral

instruction; character development as the full aim of education; factors in character development; the function of the school in character development.

BOOKS OF REFERENCE:—

Betts: *The Mind and its Education*, \$1.00.

Angell: *Psychology*.

III. *Child Study.*

20. The object of the course in Child Study is to enable the teacher-in-training to adapt intelligently his methods in each subject to the child's mind at the different stages of its growth. The course includes the following topics:—

The scope of Child Study; methods of investigation; importance to the teacher of the study of the child mind. Physical growth and development during infancy, childhood, and adolescence. Mental development during the same periods. Mental types and variations from normal mental conditions. Differences in individual children. The study of children along the lines suggested in the course in Applied Psychology.

BOOK OF REFERENCE:—

Kirkpatrick: *Fundamentals of Child Study*.

IV. *General Methodology.*

21. The object of the course in its final stage is to gather up the main facts and principles bearing most directly on methods of instruction which have been developed in connection with the various topics in Applied Psychology and Child Study; and, by dwelling on connections and relations, to organize the whole into a comprehensive and logical system of General Methodology [See 15 (1) (a)] and so to form a basis for the Special Methodology. The course includes the following topics:—

The Problem of General Method: The relation of general method to special methods and teaching devices; the relation of method to subject matter.

Planning for the Lesson: Principles to be observed in dividing the subject-matter into topics or units of instruction; the adjustment of the lesson to the tendencies, needs and capacities of the pupils; the relation of the lesson to previous work and to the stage of development of the pupils; necessity for the teacher to study the class as well as the subject-matter of the lesson.

Means of Presentation of the Lesson: Language as the medium of the transmission of experience; lecture, text-book, and question-and-answer methods of presentation; advantages and limitations of each; graphic representation as a means of presentation; principles governing the successful use of natural objects, pictures, models, maps, diagrams, etc.

The Aim of the Lesson: Aim of lesson from the teacher's standpoint; aim of lesson from the pupil's standpoint; tendencies as the starting point in the growth of knowledge or the acquisition of skill;

relation of the child's interest to native instincts and capacities and to the development of aims and purposes; the relation of interest to self-activity; the use of interest in the school-room; the normal attitude of the learner as an attitude of enquiry; the necessity for connecting the lesson with some pre-existing need of the child or of making it fit into some of his purposes or plans; the place of the statement of the aim of the lesson; the nature and purpose of the preview.

Preparation of the Class for the Lesson: Necessity for revival, and reconstruction of the old experiences of the pupil in giving meaning to the new lesson; the aim of the lesson as a purpose in the recall of old experiences; means of recalling and utilizing old experiences in the presentation of the new lesson.

Development of the Lesson: The effect of the preview, the statement of the aim and the preliminary stage of preparation to fix in the mind of the learner a vague mental whole within which mental movement in the lesson takes place; the purpose of the development of the lesson to give definiteness to this whole; the development as a process of analysis, focusing attention on particular phases within the whole, and of synthesis, instituting relations among these particulars; typical illustrations from varied subjects to show the meaning and the universality of application of this principle; the inter-dependence of analysis and synthesis; learning as an analytic-synthetic process; the place of comparison and contrast in the development of the lesson.

The analytic phase in learning; the principle of selection of relevant analysis; the place of sense-perception, telling and inference in the development of individual notions; meaning of "analytic methods" of teaching.

The synthetic phase in learning; the adaptation and use of selected material; the development and application of universal notions; meaning of "synthetic methods" of teaching; inductive and deductive methods of teaching.

Expression as a Stage in Method: Necessity for expression as a stage in rational method; interdependence of impression and expression; the importance of this interdependence as the basis for the constructive side of school work.

Typical Lesson Forms: The study lesson; the recitation lesson; the development lesson; the drill lesson; the review lesson; the construction of lesson plans.

Teaching Devices: Use of questioning in the development of the lesson; right and wrong methods of questioning; examination of the so-called Socratic method; answers; qualities of a good answer; treatment of faulty answers; mistakes in dealing with answers; illustrations; their office and value; uses of the blackboard.

BOOKS OF REFERENCE:—

McMurry: *The Method of the Recitation*, 75 cts.

Bagley: *The Educative Process*.

HISTORY OF EDUCATION.

22. The object of the course in the History of Education is to widen the professional outlook and rationalize school practice through the discussion of the development and of the merits and the defects

of educational theories. It presupposes an historical background and discusses movements rather than individuals. The course includes the following topics:—

Outline of the History of Education prior to the Fifteenth Century: This should be a *brief* survey of those conditions and forces which were specially significant in determining later important movements. It should contain concise references to the following topics: Education in its simplest forms among primitive peoples; the rise of the teaching class and the beginnings of school organization; the aim, organization, content and effect of Spartan, Athenian, and Roman education; the educational theories of Socrates, Plato and Aristotle; the influence of Christian doctrines in educational thought and practice; the early Christian schools; Monasticism and Education; the development of Scholasticism; organization and influence of the early Universities; the educational system of Chivalry; the influence of Saracen learning.

The Renaissance: The leading tendencies of the Renaissance as a movement; the origin of these tendencies; conditions favouring the development of the movement; its history in Italy and in Teutonic countries; the work of Petrarch, Boccaccio and the Byzantine Greek teachers, the effects of the Renaissance in determining educational ideals and practice; the content and method of earlier and later humanistic education; educational leaders of the humanistic movement; the work and influence of Vittorino da Feltre, Erasmus, Ascham and Sturm; the influence of the Renaissance on the organization of schools, typical humanistic schools; the German gymnasium, the English Public School, and the Colonial grammar school.

Reformation and Counter-reformation: Relation of the Reformation to the Renaissance; the reformation movement in its relation to the development of elementary and secondary education in Europe; Luther and elementary education in Germany; rise of state supported and controlled systems of education; the educational tendencies of the counter reformation; the educational works of the Jesuit order; subject matter, method and organization in Jesuit schools; training of teachers in the Jesuit order; the Port Royal schools; their aim, organization, curriculum, and methods; their influence; the Christian Brothers and elementary education in Roman Catholic countries.

Realistic Education: The development of Realism as an educational movement; its relation to Humanism; humanistic realism as represented by Rabelais and Milton; social realism as represented by Montaigne; sense-realism as represented by Ratich, Bacon, Mulcaster and Comenius; Bacon's "new method" for the discovery of truth; the influence of his theories on education; Comenius' conception of the purpose, content, method and organization of education, compared with modern ideals; brief account of his life and works; his place in education.

Disciplinary Conception of Education: Essential features of the modern disciplinary conception of education; its origin; strength and weakness of the theory; the educational theories of John Locke; his relation to disciplinary education and to later movements.

Education according to Nature: Relation of naturalistic tendencies in education to previous movements and to the condition of the

times; history of the development of these tendencies; examination of Rousseau's educational theories as developed in the "Emile"; permanent results of his influence.

Modern Educational Theories: The Psychological ideal as represented in Pestalozzi; character and significance of the Pestalozzian movement; brief account of the life and works of Pestalozzi; formulation of his educational principles; his influence on education; the Herbartian movement; its relation to Pestalozzianism; Herbart's conception of the purpose, the means and the method of education; the doctrine of the correlation of studies; general characteristic of the Fröbelian movement; brief account of Fröbel's life and work; his educational theories as embodied in the Kindergarten; his influence on educational practice.

Scientific tendencies in education; theory of education as formulated by Herbert Spencer.

Contemporary tendencies in education; sociological tendencies of present day education; origin of the sociological movement, its place in previous movements; the development of public education in Ontario.

BOOKS OF REFERENCE:—

Monroe: *A Brief Course in the History of Education*, \$1.00.

Quick: *Educational Reformers*.

Kemp: *History of Education*.

SCHOOL ORGANIZATION AND MANAGEMENT.

23. The object of the course is to give the teacher, in the light of the Science of Education, a knowledge of the technique of school management and organization which will enable him to secure the smooth and efficient working of his school. The course includes the following topics:—

School Management: Its scope and its relation to the Science of Education.

The Teacher: Natural qualifications of a good teacher; importance of scholarship, of training, of experience, of professional studies, of wide culture, of sense of responsibility, and of earnestness of purpose; the teacher's relations to the principal, inspector, trustees, parents; his civic and social duties; his personal power and influence in the school and in the community; his daily preparation for teaching; the care of his health.

Classification: Principles governing the classification of pupils in the school; the advantages and disadvantages of graded and ungraded schools; number and size of classes in urban and rural schools; examination of various methods of promotion; the division of subjects and pupils among the several teachers in graded schools.

Daily Programme: Its purpose and value; principles involved in the construction of a time-table; seat work; individual blackboard work; question of fatigue; typical time-tables for graded and for ungraded schools; registration and school records.

Technique of Class Instruction: Characteristics of a good lesson; common defects in class instruction; effects of over-teaching; advantages of class instruction; defects of a rigid class instruction; the value of the individual system.

School-room Routine: Chief varieties of mechanizing routine; their advantages and disadvantages; the appointment and duties of monitors; fire drill.

Desirable School Habits: Methods of securing desirable school habits such as punctuality, neatness in person and in work, accuracy, quietness, industry, obedience, etc.

Order and Discipline: Characteristics of good order; the relation of authority to discipline; the chief elements of governing power; rules, their value and enforcement; common faults and how to avoid them; discussion of methods of dealing with typical offences; the relation of incentives and penalties to order and discipline; co-operation of school and home in matters of discipline.

School Incentives and Penalties: Classification of incentives; the effects of each on school work and on health and character; the values of punishment; characteristics of judicious and injudicious punishment; the discipline of consequences.

Physical Education: Relation of physical to intellectual development; importance of change of work; value of play and games; organized and unorganized play.

The School Building and Premises, and School Hygiene: The Grounds; Situation, aspect, area, drainage, ornamentation, protection, care of school gardens; water supply, its sources, impurities, modes of purification. (See Departmental Circular.)

The Outbuildings: Location, structure, and supervision.

The School House: School architecture, size, shape, and suitability of rooms, hall, etc., importance of proper lighting; how to secure proper lighting, position of pupils with reference to windows; heating, warming by stoves, by hot air, by hot water, by steam, the advantages and disadvantages of each method, the jacketed stove; the thermometer, the hygrometer; fire escapes and like appliances; ventilation; necessity for good ventilation, signs of vitiated air, moistening of air, quantity of fresh air needed, different methods of ventilation; furniture and equipment; desks and seats; necessity of adjusting the height to the pupil; blackboards, their size, situation, and kinds; cloak rooms and clothing; maps, globes, library, and other necessary apparatus and equipment; pictures and decoration of walls. (See Departmental Circular, No. 33, and XVIII. below.)

BOOKS OF REFERENCE:—

Bagley: Class Management.

White: School Management.

Landon: Principles and Practice of Teaching and School Management.

SPECIAL METHODOLOGY.

24. The object of the course is to prepare the teachers-in-training for intelligently observing and teaching in all grades of the Model Schools, by enabling them to apply the principles of education and, in particular, to adapt to the work in each subject the principles of General Method. The work in the special method of each subject is introduced by a few lessons of a general character, embracing the

application of the principles of General Methodology to the teaching of the subject. These introductory lessons are followed by a series of a more detailed character, dealing with :

(1) **The selection and the organization of material for the Public School Forms, taken in order, from the standpoint of presentation to the pupil.**

(2) **The discussion of special methods of instruction, concurrent with the academic review of the subject matter.**

The courses shall be taken up in terms of the Public School Programme of Studies, the provisions of which shall be constantly kept in mind.

GENERAL BOOKS OF REFERENCE :—

Carpenter, Baker and Scott: Teaching of English.

Chubb: Teaching of English.

MacClintock: Literature in the Elementary School.

Arlo Bates: Talks on the Writing of English.

Arlo Bates: Talks on the Teaching of Literature.

Hodge: Nature Study and Life.

Dearness: How to Teach Nature Study.

Silcox and Stevenson: Nature Study.

Geikie: Teaching of Geography.

Smith: Teaching of Elementary Mathematics.

Young: The Teaching of Mathematics.

Annandale: The Concise Imperial Dictionary.

I. *Language and Composition.*

25. The special object of the course in Language and Composition is to prepare the teacher to train his pupils to speak and to write good English as a fixed, unconscious habit. The course includes the following topics :—

The importance of language training; the place of a knowledge of the mother tongue in education; the value of clearness, force and grace of expression.

Oral and written composition: Their relation; how habits of speaking and writing good English are formed; the effect of the teacher's example upon the pupil's language; value of reading and of memorizing good literature; importance of libraries for supplementary reading; incidental work in language training; expression as a stage in the development of every lesson; necessity for special exercises in oral and written composition.

Methods in Oral and Written Composition: Methods of encouraging pupil's free natural expression and of extending his vocabulary through oral exercises; principles governing criticism of oral work; the dangers connected therewith and the means of avoiding them; value of formal linguistic exercises; method of correcting common errors; relative value of pupil's own language and of special exercises in false syntax as material for criticism; the principles to be kept in view in conducting exercises in written composition; supervision and aid during writing; value of topical outlines; the place of home-work in written compositions; method of correcting compositions; value of re-writing.

Mechanics of Written Composition: Sentence and paragraph structure; paragraph compositions; the use of capitals, punctuation marks, quotation marks, abbreviations, etc.

Materials for Written and Oral Composition: Principles governing choice of topics; gathering, selecting and arranging material; class answers as material for oral composition; importance of framing questions that will require answers of considerable length; the reproduction of fairy and folk stories, fables, poems, biographies; relative value of reading and telling stories; transition from reproduction to originality; descriptions of personal experiences, real and imaginary; pictures suggestive of stories; school games, autobiographies of familiar things; developing themes from minor incidents, themes connected with school studies, general themes; letter writing, with special attention to form and style; invitations and replies thereto; bills, receipts, promissory notes, etc.

II. Reading.

26. The special object of the course in Reading is to prepare the teacher to train his pupils to get the writer's thought and feelings (*intelligent reading*) and to communicate them to the listener so that he may appreciate them (*intelligible reading*). The course includes the following topics:—

The Scope of Reading: Its correlation with other subjects; importance of training in reading and the principles of vocal expression to pupil's ordinary speech and general culture.

The processes involved in reading: The relation of ideas to symbols; the associations of visual, auditory, and motor images in reading; conditions of the formation of accurate visual and auditory impressions; constant necessity for connecting the printed symbol directly with the idea.

Forms of Reading: The function and value of silent reading, sight reading, dramatic reading, elocution, declamation.

Methods in Reading: Examination of the various methods of teaching beginners to read; advantages and disadvantages of each; devices for securing rapid word-recognition and for fixing attention on the thought as well as upon the word forms in the earlier stages; means of securing natural expressive reading; the place and limitations of imitative reading; common faults on the part of both pupil and teacher and how to correct them; criticism by teacher and by pupils. Change in purpose and methods of reading as determined by the development of the pupil's experience and powers; the necessity for giving attention to expression in all stages; the objects of advanced reading; methods of developing in pupils the habit of reading for thought and pleasure; reading as a means of creating and fostering a taste for good literature.

Mechanics of Vocal Expression: The necessity for attention to the principles of vocal expression: time, inflection, pitch, force, quality, pause, phrasing, emphasis, stress; and to exercises for rendering the organs of speech subservient to the will—vocalization, articulation, breathing, development of chest and lungs, vocal training for pure tone; the connection between the reading lesson and the singing lesson.

III. Spelling.

27. The special object of the course in Spelling is to prepare the teacher to secure accuracy in the mechanism of written word-expression. The course includes the following topics:—

Scope of Spelling: Its correlation with other subjects; nature and origin of peculiarities of English orthography; causes of the difficulties experienced by pupils in learning to spell; causes of incorrect spelling.

Methods of Spelling: Necessity for teaching, not merely testing spelling; examination of the various methods of teaching spelling; the adaptation of each to the nature of the words and to the individual mental characteristics of pupils; phonic exercises and word-building in relation to spelling; syllabication; the place of transcription and dictation; methods of checking and correcting errors; value of re-writing; prevention *versus* correction; the character of drill and review exercises in spelling; methods of varying the spelling recitation; value of rules in spelling.

Materials for Spelling Principles of selection of material for spelling; grouping of words for the purpose of spelling; incidental spelling; uses of the dictionary and of the spelling book.

IV. Literature.

28. The special object of the course in Literature is to prepare the teacher to create in his pupils a taste for good literature, while broadening their knowledge, moulding their characters, and aiding them to appreciate the beauty and the power of artistic expression of thought and feeling. The course includes the following topics:—

The nature and elements of literature.

Selection of Subject-matter for Literature Lessons: Qualities of literature that appeal to children of different ages; basis of selection of material for different grades; lists of suitable fairy tales, fables, nature stories, etc., adapted to children of lower grades and of general works for pupils in the highest forms; complete wholes *versus* extracts.

Methods in Teaching Literature: Methods of dealing with primary literature; comparison of values of reading and telling; method in supplementary reading contrasted with that in exact study; the extensive and intensive study of literature; the importance and method of memorizing selections; the value of oral reading in the interpretation and appreciation of literature; the importance of the teacher's own ability to read well; the futility of attempts to develop formally the critical sense.

Lesson Procedure: Preparation of the pupils; necessity for preparing a suitable mood for the lesson; how far the author's biography has a place here; preliminary reading of the selection; the main thought of the lesson grasped in a more or less indefinite way through a reading of it; the analysis of a selection into its wider thought elements and the analysis of these again into their elements; the place of explanation of words and phrases; the use of the dictionary; the relation of the subordinate thoughts to the unity of the whole, the main

thought of the selection as made definite by the analysis; the oral reading of the selection by pupils after study; the value of oral and written reproduction; suitable seat work.

Examinations in Literature: Difficulties of examining in literature; specimen examination questions.

Teacher's Preparation: Special importance of teacher's own qualifications; a class-course in Literature, including the literary study of portions of the Bible prescribed by the Education Department; sessional private reading-courses for teachers-in-training; suggestions for their future reading.

School Library: Principles to be kept in view in selecting works for the school library; methods of making use of school library; means of securing the co-operation of the home in the pupil's reading.

Note.—Teachers-in-training having conscientious objections to the literary study of the Bible shall be excused therefrom by the Principal. Religious instruction by the different local clergymen is provided in each Normal School.

V. Grammar.

29. The special object of the course in Grammar is to prepare the teacher to train his pupils in habits of logical analysis, and to give them a basis for self-criticism in language by developing the principles of language structure. The course includes the following topics:—

Meaning of English Grammar; the relation of grammar to speech; correlation with other subjects; reasons for and against retaining it in elementary schools; reasons for deferring the formal study till Form IV.; introductory work of Forms II. and III.

The sentence as the starting point; basal value of function; order and method of teaching the parts of speech; principles of classification as applied to grammar; inflection, use and value of our remaining inflections; rules of syntax, their value; use of grammatical terminology; definitions, their value, how to be obtained, how to be applied; analysis and parsing, aim and value of each; value of diagrams; oral and written exercises; treatment of false syntax; elementary etymology, the derivation and composition of words.

VI. History.

30. The special object of the course in History is to prepare the teacher to train pupils to adapt human experiences to present situations. In the elementary stages the chief objects are to arouse an interest in historical studies, to enable the pupils to appreciate the logical sequence of events, and to give them a knowledge of their civil rights and duties; also to stimulate a love of country. The course includes the following topics:—

The Scope of History: The correlation of history with other subjects, especially geography; the special value of Canadian and of British history; the proper perspective in the development of the subject; parts enlarged in the academic review; what makes an event important.

Methods: The recitation, its form and purposes, the place of oral teaching and of blackboard work by teacher, and of written exercises at seat and at blackboard by pupils; methods in oral and in written work; the use of pictures, maps, etc., of readers and of the text-book.

Stages in the Course: Special necessity for the adaptation of the teaching of History to the pupil's growing knowledge and logical capacity. The picture and story stage, a methodically arranged series of picturesque biographies graphically narrated; no text-book. The information stage; an introduction to history proper, methodically presented; external and picturesque side made prominent, with emphasis on biographical and social aspects; introduction of history readers and biographies in the library. The reflective stage; the study of causal relations and of the origin, development, and inner life of our institutions.

The selection and arrangement of material suitable for different grades; the place and purpose of each of the following:—

History of the aborigines, pioneers, local history.

Characteristics of peoples, as those of the United States, Japan, China, France, Quebec.

Biography: The natural attractiveness of biography; the relation of biography to history; the effects of a study of biography on the development of character; selection of suitable biographies for pupils of different grades, as the lives of explorers, navigators, and soldiers for primary grades; of statesmen, poets, scientists, etc., as representing more complex conditions, for pupils of higher grades.

Civics: Ends to be kept in view in teaching civics; consideration of work to be undertaken in civics; study of civic institutions as appearing in their lowest forms among primitive peoples; the beginnings of governments, of courts, of school systems, of factories, of means, of transportation, etc., study of present forms of civic institutions.

Epochs: Their relation to biography; systematic chronological study of history; its value and its dangers; the causal sequence of events.

Supplementary Material: The use of mythology, ballads, orations, epics, legends, tales of chivalry, narrative poems, and historical novels; character of history readers and of supplementary works for the different grades. Significance and value of the Flag.

VII. Geography.

31. The special object of the course in Geography is to prepare the teacher to extend the pupil's knowledge of the earth and its relation to life thereon, and to assist them in interpreting and utilizing their physical environment in accordance with their needs. The course includes the following topics:—

The scope of geography; its relation to other subjects, especially to Nature Study, History, and Elementary Science.

The review of the course should lay special emphasis on the study of the earth's surface and the changes wrought thereon by the various agencies; rock formation and soils; distribution of mineral deposits; plant and animal life; the earth's relation to other heavenly bodies; weather and climate; man's relation to the rest of the world; commercial and political geography.

Methods: Consideration of the order of development of the subject in rural and urban schools; the use of maps, globes, pictures, black-board drawings, natural objects, specimens of products, lantern slides

and stereoscopic views; modelling, map drawing, scales and projections; weather observations and records, simple experiments in explanation of natural phenomena (See course in Experimental Science); excursions in connection with the observations in local geography; inter-school correspondence; the use of reference library, books of travel, geography readers, etc., common mistakes in teaching geography and means of avoiding them.

VIII. *Nature Study.*

32. The special object of the course in Nature Study is to broaden and deepen the teacher's sympathies and interests, and, through him, those of his pupils, by training him to observe and interpret the common phenomena of the world about him. The course includes the following topics:—

The character and scope of nature study; its relation to formal science; its correlation with other subjects.

Materials for Nature Study: Conditions determining the choice of material for nature study lessons for pupils of different grades, and for varying conditions in rural and urban schools; uses and limitations of books, pictures, models, collections, etc.; supplementary materials such as stories, literature, etc.

Methods in Nature Study: Nature Study as a method; special characteristics of a typical nature study lesson: uses and limitations of records of observations; directions for conducting school excursions. The study of special topics dealing with materials of nature study and illustrating methods of presentation in all grades of public schools, the topics to be typical and to be selected from various grades and departments of the Public School course of study.

School-gardens: The purpose of school gardens; school gardens as a phase of nature study work; their relation to agriculture and horticulture; the discussion of the purpose and possibility of the study of agriculture and horticulture in urban and rural schools.

Practice in planning and plotting a garden; planning school grounds for tree planting in accordance with the principles of landscape gardening; preparation and planting of experimental plots in the school grounds to illustrate the benefits of rotation, fertilizing, spraying, mulching, etc.

Note.—Teachers-in-training should make frequent excursions for the purpose of studying materials in their natural environment and relations. They should make collections of different kinds for their own use as well as to enable them to direct as teachers the practical side of nature study. The nature of the collections will be regulated by the kind of school in which the student will likely teach; rural teachers should make collections of weeds, weed seeds, economic plants, diseased plants, injurious and beneficial insects, etc.; urban teachers, of factory products, garden flowers, etc. Besides acquiring experience in planning and planting gardens, teachers-in-training should visit schools where successful garden work is being done.

IX. *Elementary Science.*

33. The special object of the course in Elementary Science is to give the teacher a better appreciation of its general principles, a more accurate knowledge of its facts, and greater familiarity with apparatus; so that he may be able to teach Natural and Experimental Science systematically. The course includes the following:—

The scope of the experimental and natural sciences; their correlation with other school studies.

A comprehensive and practical review of the course in Elementary Science prescribed for the Lower School of High Schools, the emphasis in experimental science being placed on those facts and principles of chemistry, mechanics, heat, sound, light, and electricity which are essential to the understanding of common natural phenomena.

The construction of simple apparatus. (See Manual Training course.)

The Microscope: Its construction and use; selection and preparation of material for microscopic work, having direct reference to Bacteriology—a brief course.

Methods of Teaching: The meaning and value of observation and experimentation; inductive and deductive methods of investigation; the place of class-room discussion; demonstration by the teacher and laboratory work by the pupil; the use of note-books and text-books.

Note 1.—The work in Elementary Science should be carried on through class room discussions and laboratory work with emphasis on the latter. Teachers-in-training should become familiar with methods of experimentation and should attain skill in instrument manipulation. They should also be required to keep neat and accurate records of observation and experimental work.

Note 2.—In both the nature study and the Elementary Science course, the subject matter of Biology should receive more attention than that of Physics and Chemistry, which are subjects of the July Entrance Examination. The course in Nature Study is of more importance than that in Experimental Science.

X. Arithmetic.

34. The special object of the course in Arithmetic is to improve the teacher's knowledge of the subject that he may use it effectively as a means of logical training, and more particularly that he may be prepared to give his pupils such instruction in the various arithmetical processes as will enable them to make with accuracy, rapidity, and facility, the calculations and computations which their future life may render necessary. The course includes the following topics:—

The scope of arithmetic; its relation to the other subjects of the curriculum; importance of its practical aspects as related to the lives of the pupils; danger of over-estimating its value as training in logic.

The origin of number as the result of the necessity for the valuation or limitation of quantity by measurement; the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; number, a ratio.

Methods in Arithmetic: Analysis and synthesis, induction and deduction,—compared, illustrated, and applied; graphic methods; use of concrete material in making clear new processes and in verifying and interpreting operations performed; the use of text-books and of prescribed apparatus; the importance of training in, and devices to secure, neatness, accuracy, and speed in computation; the importance, place, and treatment of oral arithmetic; the value of problems; the essentials of proper solutions; solutions by full analysis, and by performing operations only; "unitary" method and method of direct measurement; grading of problems; interest in problems for which the pupils themselves furnish the material; blackboard work; drill and examination work in arithmetic.

A thorough treatment of the various arithmetical operations and their applications with special stress upon the requirements of teachers engaged in public school work. This should include the following:—

Counting; measuring with standard units; numbers from 1 to 10, from 10 to 20, etc.; number pictures, notation and numeration; addition-tables, exercises, devices; subtraction—by decomposition, by equal additions, and by complementary additions; multiplication—relation to other operations, tables, exercises, factors, division—short and long, factoring, cancellation, division by factors; measures and multiples.

Fractions: How and when to be introduced, different interpretations, notations, rules for operations deduced and applied; decimal fractions, correspondence of methods of numeration, notation, and operations with those of integers, recurring decimals.

Applied Arithmetic: Percentage, trade discount, commission, insurance, taxes, interest, discount, stocks, exchange; tables of weights and measures; the metric system; mensuration including the areas of rectangles, triangles, parallelograms, and circles, and the volume of rectangular solids, cylinders, and prisms; square root.

XI. Algebra.

35. The special object of the course in Algebra is to familiarize the teacher with its fundamental conceptions and to prepare him to present the various processes of the subject in the most effective way. Having regard to the fact that Algebra is Arithmetic generalized, its special object is the same as that of Arithmetic. The course includes the following topics:—

The scope of algebra; when the subject should be introduced.

Relation of algebra to arithmetic; a comparison of the nature and application of its symbols and operations with those of arithmetic; the equation as a means of connecting the subject with arithmetic and of introducing its symbols; the origin and explanation of algebraical symbols; the relation of algebra to geometry.

The use of induction, deduction, and mathematical induction in algebra.

Methods of Teaching algebraic notation, addition, subtraction, multiplication, division, formulæ, factoring, measures, multiples, fractions; testing algebraic operations by "checking."

The Equation: Its nature; identities; the solution of equations of one and of two unknowns, and of easy quadratics; the mathematical axioms employed in these solutions; the interpretation of results; the equation applied to the solution of problems; comparison, where possible, of algebraic with arithmetical solutions.

XII. Geometry.

36. The special object of the course in Geometry is to prepare the teacher to train his pupils to attain skill in the use of instruments, in accurate measurements, and in drawing; and, through these, in inductive and deductive reasoning. The course includes the following topics:—

The scope of geometry; when it should be begun; methods of treatment—inductive and deductive; the relation of inductive geometry to deductive geometry; the inductive course for beginners.

Method of introducing the definitions.

The use of simple instruments, compass, protractor, divider and set square, in the measurement of lines and angles; the construction of lines and angles of given magnitude; the construction of geometrical figures.

The inductive method of proving some of the leading propositions of Euclid, through the accurate construction of figures; the deductive application of principles reached through induction.

Throughout the course, accuracy in construction shall be insisted upon as co-ordinate with exactness of thought.

XIII. *Writing.*

37. The object of the course in Writing is to train the teacher to write rapidly and legibly, and to make him familiar with the best means of securing the most satisfactory results in the teaching of the subject. The course includes the following topics:—

The purpose of writing; its correlation with other subjects.

A brief outline of the different methods of teaching the subject.

Penholding; position at the desk; position of the paper; the proper formation of the small and the capital letters and the figures; various movement exercises; practice on paper and on the blackboard.

Use of headlines and copybooks; use of blank paper; its ruling; value of transcription, dictation, and composition in writing; how general and individual faults are corrected; the formation of a characteristic hand; how to deal with pupils having some physical disability. Business Forms.

A brief review of the Lower School course in Book-keeping, also affording practice in writing.

Note.—After the teacher-in-training has mastered in class the proper formation of the letters, etc., and the movement exercises, the master should require him to hand in from time to time exercises for criticism until his handwriting is satisfactory.

XIV. *Art Work.*

38. The special object of the course in Art is to give the teacher such a knowledge of the subject, such a training of his æsthetic nature, and such facility in the use of Art as a means of expression as will enable him to develop like tastes and powers in his pupils. The course includes the following topics:—

The scope of Art; Art as a mode of expression and a means of æsthetic culture; its correlation with other subjects in the school course.

Freehand Drawing: How to use the various mediums, pencil, charcoal, crayons, ink with pen or brush; the drawing of common flat objects such as leaves, grasses, brooms, shovels, saws, hammers in an appropriate medium; the drawing of common spherical, cylindrical, and rectangular solids, illustrating the principles of freehand perspective; the grouping of objects; simple landscapes from nature and

imagination; illustration of games, occupations, nursery rhymes and stories; pose drawing; drawing from casts.

Blackboard Drawing: The use of white, black, and coloured crayons on the blackboard and on large pieces of paper; rapid illustrative sketches to aid in the teaching of all subjects; blackboard drawing specially important to the teacher as a means of expression.

Water Colours: Theory of colour; the solar spectrum; the six standard colours, red, orange, yellow, green, blue, and violet; the intermediate hues, red-orange, yellow-orange, yellow-green, blue-green, blue-violet and red-violet; the tints and shades of each colour in graduated scales; the pigmentary theory; primary, secondary, and tertiary colours; complementary colours; colour harmony, dominant, analogous, and complementary; the neutral value scale; the making and applying of graduated and uniform washes; the representation in colour, neutral values, and sepia, of leaves, grasses, flowers, fruits, trees, insects, pet animals, birds, and common objects; the grouping of objects; simple landscapes from nature and imagination; elementary composition of pictures.

Decorative Design: The principles that determine the rhythm, balance, and harmony of tones, measures, and shapes; borders, surface designs, designing of Christmas cards, programmes, book covers; lettering; designs to be done in neutral value first and then carried out in colour.

How to study a picture; the critical study of a few masterpieces of painting.

BOOK OF REFERENCE:—

Prang's *Text Books of Art Education*; 7 books, \$2.40.

Prang's *Art Education for High Schools*.

Prang's *Drawing Course*.

Atkinson, Mentzner and Grover: *Applied Arts Drawing Books*.

D. C. Heath & Co. *The Parallel Course Drawing Books*.

H. W. Poor: *How to Draw*.

XV. *Manual Training*.

39. The special value of the course in Manual Training is to train the teacher to appreciate the educational value of various forms of Constructive Work, and to select and use in the most effective way constructive exercises in the varying conditions of urban and rural schools. The course includes the following topics:—

The scope of Manual Training; its correlation with other subjects in the curriculum; the selection of exercises based on the requirements of the school and the home; outlines of courses in the different forms of hand-work. The practical course includes the following with concurrent methodology:—

Handwork for Primary Grades: Typical forms of constructive work adapted to the capacities of children in the lower grades, including weaving, elementary paper and cardboard work and modelling.

Drawing: A short course in mechanical drawing with and without instruments; plans and blue prints.

Advanced Cardboard Work; book-binding, simple repair of books; trimming and mounting of pictures.

Basket and Rafia work to be confined as far as possible to the use of native fibres, correlating with nature study.

Modelling: Materials used for modelling and how these are kept; modelling natural forms; plotting; modelling as a means of teaching geographical concepts; supplementing observation of the topography of school neighbourhood; supplementing word pictures in readers, etc.; models used in conjunction with drawing, etc.; in teaching principles of design.

Woodwork: Tools and how to keep them in good working order; designing; a short course in bench work; uses of woods and their suitability to such uses.

The construction of simple forms of school apparatus in wood, metal, glass, and their combinations.

Co-operative exercises in the above forms of work.

XVI. Household Science.

40. The special object of the course in Household Science is to enable the teacher to relate the work of the school to the activities of the home. It is a form of Manual Training, and possesses the same educational value. The course includes the following topics, with concurrent methodology:—

The Home: Purpose; use, furnishing, and care of each room; methods of cleaning; ventilation.

Foods: Elements of food required by the body; digestibility of these; analysis of common foods—milk, eggs, meat, fruit, vegetables, cereals; effect of heat on these as to food value, digestibility, and flavour.

Cookery: Principles of combustion; care of stoves; fuels; principles and practice of each method of cooking—boiling, simmering, steaming, steeping, toasting, broiling, frying, baking, etc.; food combinations; flour mixtures; lightening agents used in these; table service.

Bacteriology: Occurrence and nature of bacteria; sanitation based on this knowledge; preservation of foods.

Needle Work: A study of each stitch on different textures and fabrics; application of these in making simple articles as bags, aprons, handkerchiefs, needle-cases, towels, etc.; mending, darning, patching, using different textures and fabrics; button-hole making, sewing on buttons, hooks and eyes; colour combinations; taking measurements and drafting patterns; making dolls' clothes; making simple garments and underclothing.

XVII. Music.

41. The special object of the course in Music is to train the teacher in the use of Music as a means of self-expression and of æsthetic culture. The course includes the following topics:—

Tune: Practice in singing from the staff and tonic-solfa modulators; intervals of moderate difficulty, contained in the major diatonic scales; modulation from any given key to its relative minor, and its dominant and subdominant.

Time: Practice in singing rhythmical studies in simple or compound duple, triple, or quadruple times; the pulse as the unit of measurement in time, with its divisions into halves, quarters, or thirds in varied combination.

Ear Training: Development of the power to recognize by ear, and to transcribe the tonal and rhythmic elements of short musical phrases, when sung or played.

Voice Culture: Practice in correct tone production; vowel formation; enunciation of consonants; breath control; correct intonation; and the equalization of the various registers of the voice.

Songs: The study of songs suited to the requirements of pupils in all grades of public and separate Schools, with special attention to development of power in musical expression; the study of part songs of recognized merit, arranged for adult voices.

Notation: Elements of notation, both tonic-solfa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Vocal Physiology: Comparison of abdominal, intercostal, and clavicular breathing; the larynx; action of the vocal chords in the production of the various vocal registers; influence of the mouth and nasal cavities on vocal resonance and vowel quality.

Methods: Concurrently with the foregoing course, a practical knowledge of recognized systems of teaching the tonic-solfa and staff notations shall be acquired; also of the relative importance of the staff and tonic-solfa systems and the grading of musical studies.

Note.—Teachers-in-training who, from any cause, consider themselves incapable of learning to sing should present their cases to the teacher of Music at the beginning of the term. If, on examination, it should be found necessary, special instruction will be provided, adapted to their needs: and their efforts to overcome any natural disability which may be found to exist, will be taken into account at the oral examination at the close of the term. The written examinations, however, are compulsory for all students.

XVIII *Physiology and Hygiene.*

42. The object of the course in Physiology and Hygiene is to train the teacher in the knowledge requisite for the maintenance of the health of both himself and his pupils, and to qualify him for supervising the sanitary conditions of the school and its surroundings. The course includes the following topics:—

School Hygiene: School sanitation. (See under School Management, p. 19.)

Contagious and Infectious Diseases: Common facts of bacteriology, how to detect existence of common infectious and contagious diseases; modes of preventing spread of these diseases; sanitary legislation; duties of the teacher.

Personal Hygiene (with the necessary minimum of anatomy): Framework of the body; spinal curvature, its causes. Digestive system; foods, care of teeth; saliva. Physiology of respiration and circulation. Skin and other depuratory organs, hair, nails, bathing, clothing, etc. Muscles; the relation of exercise to health. Brain and nervous system; relation of mind to body; mental exercise; study; rules regarding mental work; irregular and overwork; mental strain and worry. Effects of alcohol, tobacco, etc., on organs and functions.

The eye: Its physiology and hygiene; lighting; myopia and presbyopia; affections produced by improper accommodation; colour blindness; tests for defective eyesight.

The ear, the nose, and the throat; Their physiology and hygiene; ear and throat troubles, causing dulness in pupils; tests for defective hearing and breathing.

Accidents and emergencies: First aid in such cases as fainting, suffocation, drowning, hemorrhage, fractures and dislocations, venomous stings, poisoning, frost-bites, sunstrokes and heat-stroke, burns; bandaging.

BOOK OF REFERENCE:—

Knight: Introductory Physiology and Hygiene.

XIX. *Physical Training.*

43. The special object of the course in Physical Culture is to enable the teacher to make proper provision for the physical training of his pupils. With Physiology and Hygiene (School and Personal) as a basis it prescribes and directs rational forms of exercises for the attainment and maintenance of health, the development of a symmetrical body, and the formation of habits of grace and ease in muscular movement. To this end the teacher-in-training should be made familiar with the German, Swedish, French (Delsarte), and American systems of physical training. The course includes:—

Breathing Exercises: Running, hopping, quick walking.

Leg Exercises: Standing positions, fundamental stride, etc.; standing with flexions of ankles and knees; fall-outs; charges; fencing positions and kneelings.

Arm Exercises: Starting position, hands at side, at shoulders, at thrust, at upward bend, at formal bend; movements of raising, swinging, rotation, circling, flexion, and intension.

Neck and Trunk Exercises: Flexion, extension, and rotation.

Free Exercises: All the simpler forms from fundamental positions; also compound movements of two parts in the same, opposite, and right-angled directions.

Tactics: Facings and steppings; marching in various formations of rank, file, column, etc.; fancy steps, following and changing steps, etc.; running.

Special Exercises: For correcting the individual defects that may be found among children.

Recreative Gymnastics: Indoor and outdoor games.

XX. *School Law and Regulations.*

44. The Ontario School Law and Regulations so far as they deal with the duties and obligations of teachers and pupils.

XXI. *Manners.*

45. A course in Manners. Especial care shall be taken that, while in attendance, the teachers-in-training shall observe the rules of courtesy and social etiquette.

BOOK OF REFERENCE:—

Practical Etiquette.

3—CIR. 23

NORMAL MODEL SCHOOLS.

46.—(1) The terms of the Normal Model Schools shall correspond with those of the Public Schools in cities. The regulations of the Education Department with regard to pupils and teachers in Public Schools shall apply to the teaching staff and to pupils of the Model Schools, subject to any modification that may be made from time to time by the Minister of Education.

(2) The Head Master of each Normal Model School and the director of the Provincial Kindergarten shall act under the direction of the Principal of the Normal School to which their respective departments are attached, and shall be responsible to him for the order, discipline, and progress of the pupils, and also for the accuracy and usefulness of the lessons conducted by the teachers-in-training.

JOHN SEATH
SUPERINTENDENT OF EDUCATION



TORONTO, May 1st,

DEAR SIR,—

The Minister intends to admit to the North Bay school, which w
next September, candidates for second class certificates (session to last
middle of June), and for third class certificates (a session of about three m

Assuming—

(1) that candidates for teachers' certificates who are residents
districts will be sent to the North Bay school, and

(2) that the Minister will pay the travelling expenses for one
and from their homes, of such candidates as live outside of a radius of one
miles from the school,

kindly let me have, at your earliest possible convenience, as close an esti
you can make of the number of your pupils who will attend next Septe
candidates for second class and third class certificates respectively.

Yours truly,

JOHN SEATH

The Principal,

.....

.....



FRENCH-ENGLISH SCHOOLS.

HINTS ON TEACHING ENGLISH TO JUNIOR FRENCH CLASSES.

1. ORAL WORK.

The teaching of Oral English should begin with the child's first week in school, and the object of making it serviceable and accurate should be kept steadily in view. In the beginning teach through objects, choosing at first those most familiar to the child. In the junior classes the answers of individuals, when correct, should be repeated in concert by all, also separately by some pupils, especially the dull or backward. In all language or object lessons lead pupils to use, as freely as possible, all the English they may have learned, to form their own statements, to vary the form of phrases or sentences, to ask questions etc., encouraging all such attempts however imperfect they may at first be. With young pupils, correct all mistakes instantly, in a kindly way, and have the proper form repeated, and if necessary drilled upon. The teacher should take special care to endeavor to secure correct pronunciation by setting a good example for imitation, and by giving thorough drill on the difficulties commonly met with, *e.g. three, old man, etc. etc.*, even exaggerating such sounds if necessary. Above all it should be remembered that much of the success in this teaching will depend upon thorough and frequent drills and reviews. For this purpose the teacher should keep a list of all words, phrases or sentences gone over, especially with the junior class. The order in teaching should be as follows:—

1. Holding an object in plain view of the class, the teacher gives its name clearly and slowly; then the pupils pronounce its name (a) after the teacher, (b) without the teacher's help, (c) individually. Other objects are similarly treated, the number depending upon the ability of the class.

2. The teacher pronounces the name and the pupils show or hold up the object.

3. The teacher shows the object and the name is given by the pupils (a) together, (b) separately.

4. Not too many objects should be given in each lesson, but the teacher should make sure that every child knows (a) the object when named, (b) the name when the object is given, the latter presenting the greater difficulty. Among the objects to be first taken up are (i) things in the school, (ii) familiar things of the home, (iii) parts of the body, (iv) articles of clothing worn by the children, (v) other common objects, *e.g.* apple, watch, stone, leaf, etc. Later, pictures may be used to teach common animals, vegetables etc. etc.

5. When the pupil has a fair stock of names, teach simple descriptive words, still by means of objects, *e.g.*: a *short* pencil, a *long* stick, a *small* book, a *large* slate, a *red* dress, a *black* hat, etc. Related or contrasted terms are more easily taught together.

6. *Simple* acts should be performed (a) by the teacher, (b) by the pupils, and described in full statements; *e.g.* the teacher, doing the act as he describes it, says: I open the book, I raise the window, I tear the paper, I sit down, etc. Then the class is told to open the book, to raise the window, to tear the paper, to sit down, etc., to show their understanding of the English sentence. A further step is to have them tell in full (English) statements, what they do. Afterwards the application of these words should be extended by such requests as: open the door; open the window; open the desk; etc.; raise the slate; raise the chair; etc., the pupil describing in English what he is doing.

7. The use of the simple pronouns, he, we, hers, they, etc., should be taught through simple language lessons, *e.g.*: his slate; my book; he cleans the board; you hold the box; they close the door, etc.

8. In a somewhat similar way the simple prepositions may be taught, *e.g.*: the book is *on* the chair; *under* the desk; *beside* the slate, etc.

9. When some little advance has been made, the question and negative forms should be used: also the plural and possessive forms, the simple past tense and the common auxiliaries. These should not be taught from a book, or by rules, but should come from proper questioning, *e.g.*, Tell me what he does? (he *writes* on his slate.) What is he doing? (he *is writing*, etc.) What did he do? (he *wrote*, etc.) What has he done? (he *has written*, etc.)

10. Pupils should learn by heart such lists as the days of the week, the months, the numbers (as their arithmetic progresses); also simple pieces in prose and verse, the meaning of which they understand. They should sing Kindergarten songs, performing the actions, etc.

11. After teaching things as wholes, take up their parts, *e.g.* knife handle, blade, spring, etc.; chair back, legs, seat, etc.

12. The spoken English and French words should be associated throughout the course, the teacher giving the word or sentence in one language, and the pupils in the other. The teacher should use English in communicating with the pupils, so far at least as the progress of the class will admit. All explanations or commands given in French might afterwards be repeated in English.

13. These oral lessons should be taken at least twice a day, starting with ten minutes for each, and lengthening the time as the class progresses.

II. WRITTEN WORK; READING AND TRANSLATION.

1. When considerable progress has been made in the oral work, the names of objects, the descriptions of simple actions, etc., should be written on the board, after having been given orally, and the pupils taught to recognize them in that form. Then they should be copied by the pupils and afterwards read to the teacher. Great care should be taken to secure, from the first, large legible writing as it makes word recognition more easy.

2. These blackboard exercises may be continued for some time before the pupil is required to read from a book. The teacher may use charts, made by herself of big sheets of strong paper, using crayon for writing the words in large hand. The lessons should contain the words and phrases already taught and some new ones, and should not be identical with the lessons in the primer.

3. If the teacher understands the phonic method she should use it after the pupil can recognize readily a fair number of words.

4. But, even if the teacher is unacquainted with phonics, she may greatly facilitate the learning of a number of words by using the board to show their likeness in form, which will easily suggest their likeness in sound; *e.g.*, from *book* it will be easy to teach *look*, *took*, *cook*, etc.; from *chair*, *hair*, *fair*, *pair* etc. Similarly he might point out simple changes in sound dependent upon changes in form, *e.g.* :

pin, }	hat, }	not, }	etc.
pine, }	hate, }	note, }	

Also he should thoroughly drill on forms that might be confusing on account of their resemblance, *e.g.* :

from, }	tool, }	though through thought }	etc.
form, }	toll, }		

These words need not be specially sought out but should be used as the lesson supplies or suggests them.

5. Before beginning reading from the book, take a series of object or language lessons to make the pupils acquainted with the subjects of at least the earlier lessons. Knowing the written words from the board, and being familiar with the ideas, the pupils should find little difficulty in these first lessons, especially if the blackboard is freely used.

6. It is most important that, before the reading, the teacher should talk about the lesson, explaining with the pupils' help, the meaning of each particular word or phrase that might present difficulty, putting the new words into other constructions, giving the phrases a different form or using them in more familiar sentences than those in the Reader, paying special attention to idioms, etc., endeavoring in every way to give pupils a clear understanding of the meaning and the construction. So far as the advancement of the class will admit of it, all such explanation should be in English. If the meaning has to be given in French, it would be well to repeat it immediately afterwards in English so the pupils may grasp it in that language also.

7. Where the Bi-lingual series are used, the French lesson may be taken first, as presenting fewer difficulties.

8. After the reading exercise, the substance of each lesson should be given in the best English the pupil can command. It should be in a connected form, with but few questions from the teacher. Pupils may be encouraged to suggest words or phrases that would be more suitable than those first given, or the teacher may supply them; such corrections should be employed in different sentences till the pupil knows their use.

9. To the third form inclusive, the pupils should copy every English lesson, and the teacher should test their knowledge of such written work.

10. The teacher should write on the board, lists of English words or phrases, previously taught, followed by their French equivalents in parallel columns, to be copied and learned by heart. As a test, the English or the French column may be erased, to be supplied by the pupils on their slates or exercise books.

11. There should be English dictation every day, at first of such words as were written on the board and learned by the class. For the hard words the teacher should write them on the board, directing particular attention to the difficulties each presents, (silent letters, etc.) and have them copied on slates by the class. Then erase them from the board and slates and give in dictation. Afterwards phrases or sentences containing these words may be dictated.

12. All errors in such exercises should be written several times in the correct form, and a list of those words most commonly missed, should be kept to review from.

13. Each day the class should learn by heart a portion of the reading lesson, or of certain selected lessons, or of other selections written on the board. The meaning of each should be made clear to the pupils.

14. As the class advances teach the written English forms of the plural, the possessive, the masculine and feminine, the past tense, etc.

15. Sentences that the pupils have given in English describing actions, pictures, etc., should be written on the board and, with the help of the class, the translation of each word put underneath it. In such sentences the order of the words should at first be the same in the two languages. Erase the sentences from the board, dictate the French, and have pupils write on their slates the corresponding English from memory. Sentences wherein the order of the words differs in the two languages, should come only after the pupil has had considerable practice.

16. With each reading lesson, whether French or English, there should be considerable oral translation, at first of the easier words and phrases, but gradually increasing in difficulty as the pupil advances, until the whole lesson can be so rendered. In such exercises from the Bi-lingual series, either one side of the open book should be covered, or else the book be closed. The pupils' own expressions should be preferred to those of the book, if they convey the right meaning. Frequently the teacher should give for translation sentences changed somewhat from those in the lesson, though consisting for the most part of the same words, especially for the junior classes.

17. For the young pupils the translation should be as literal as possible so that they will have some definite meaning for each word. After considerable practice they may be taught to give a variety of expressions or forms, while preserving the meaning; and the English idioms may be introduced *gradually*.

18. Translation should not be confined to the reading lessons, but should include arithmetic, geography, history and all school studies.

19. The reproduction of interesting stories will be of great service. If the teacher reads the story in French let the class relate the substance of it in English; if given in English let the pupils tell it in French first and afterwards in English. This reproduction should be oral at first so that all mistakes may be corrected; afterwards it should be written if the pupil is able.

20. The use of a dictionary for assisting in translation should be explained in the senior second form, or earlier if the pupils can profit by it. They require instruction how to choose the proper word and how to tell the pronunciation. Each school should have a standard English dictionary, (the Concise Imperial is good,) and a large French-English dictionary, as the smaller books commonly used by the pupils are not always reliable or sufficiently complete.

21. Regular written translation should begin at latest in the junior second form, and should receive very careful attention in all classes. The first exercises should be short and simple. They may be taken from the Reader or may be suitable selections from other books; In the latter case they should be written on the board or dictated to the class. Especially in the early lessons it is very advisable to make free use of the board to shew the correct form and to simplify all difficulties. Every written exercise should be carefully examined, and be written again if many mistakes are found. There should be at least two such exercises in written translation each day.

Where the Bi lingual series are used the teacher should supply himself with other material suitable for translation.

EDUCATION DEPARTMENT,
Toronto, April, 1892.



Regulations of the University Matriculation Board.

(1) The University Matriculation Board is constituted for the purpose of appointing examiners for the Junior Matriculation Examinations, regulating the conduct of these examinations, considering the reports in connection therewith, and forwarding its findings to the Minister.

(2) There shall be two classes of examiners, (a) Examiners-in-chief who shall set the question papers and read the scholarship and appeal answer papers, and (b) Associate Examiners who shall read the other answer papers.

(3) The University Matriculation Board shall appoint as Examiners-in-chief persons of well known ability as teachers in either a University or a High School. No Examiners-in-chief shall be engaged in the preparation of candidates for the examinations concerned.

(4) The Board shall appoint as Associate Examiners persons holding specialists' certificates according to the regulations of the Department of Education, or graduates of any British University. Such persons shall be actually engaged in teaching the subject which they are appointed to examine, and shall have had at least *two* years' successful experience as a teacher in this Province.

(5) Except in the case of an emergency, no Examiner or Associate Examiner shall be appointed for more than three consecutive years.

(6) Any candidate may have his papers re-examined on appeal to the Minister of Education not later than September 1st. Each appellant shall be charged a fee of \$2.00, which shall be refunded if the appeal is sustained. No appeal, however, against scholarship awards shall be entertained.

(7) Each appeal answer paper shall be read by the Examiner-in-chief who set the paper or by a substitute appointed by the Matriculation Board.

(8) The number of Examiners-in-chief and Associate Examiners, from year to year, for each examination shall be determined by the Minister of Education on the report of the Matriculation Board and of the Registrar, respectively.

(9) The standard and character of the examination papers shall be determined by the regulations and statutes of the University of Toronto.

(10) All communications or references requiring the attention of the Matriculation Board shall be addressed to the Deputy Minister of Education.

(11) The Board shall appoint an executive committee of not more than three members who shall, in the intervals between the meetings of the Board, perform such duties as may be assigned to them by the Board.

(12) The Examiners-in-chief shall act as a Board, subject to the provisions of "Instructions" No. 7, and shall be jointly responsible for each and every question paper.

(13) The Registrar of the Department of Education shall be Chairman of the Board of Examiners-in-chief and of any committee thereof, and shall perform the duties set forth in Circular "Instructions" No. 7.



Provincial Normal Kindergarten Schools.



The Normal Schools are situated in Ottawa and Toronto.

All communications must be addressed to the Deputy Minister of Education, Toronto, and applications must be made on the regular form, accompanied with the fee of \$5.

KINDERGARTEN CERTIFICATES, EXAMINATIONS AND SYLLABUS.

1.—(1) No person shall be appointed to take charge of a Kindergarten in which assistant teachers or teachers-in-training are employed, who has not passed the examination prescribed for Director of Kindergartens; and no person shall be paid a salary or allowance for teaching under a Director who has not passed the examination prescribed for assistant teachers.

(2) No person shall be admitted to the course of training prescribed for assistants who is not seventeen years of age and who does not hold a primary certificate, or who has not spent at least three years in a High School. No person shall be admitted to the course prescribed for Directors unless such person has obtained an Assistant's certificate.

(3) Any person who attends a Kindergarten for one year and passes the examinations prescribed by the Education Department shall be entitled to an Assistant's certificate; and the holder of an Assistant's certificate, shall, on attending a Provincial Kindergarten one year and on passing the prescribed examinations, be entitled to a Director's certificate.

(4) Any person holding a Second Class Certificate, shall on attending a Provincial Kindergarten one year and passing the examinations required by the Education Department, obtain a Director's certificate.

(5) The Minister of Education, may, at his discretion, accept the certificate of any other training school for Kindergarten work, as the equivalent of the Departmental Kindergarten examinations, or he may limit Kindergarten certificates to any city or town, as he may deem expedient.

EXAMINATIONS.

2.—(1) The Minister of Education shall prescribe the time and place for Kindergarten examinations, and shall appoint such Examiners in the Theory and Practice of Kindergarten work as he may deem expedient. The examination for Directors shall embrace the General Principles of Froebel's System, 150 marks ; Theory and Practice of the Gifts and Occupations, 100 marks ; Mutter and Kose-Lieder, 100 marks ; Miscellaneous Paper, 100 marks ; Practical Teaching, 500 marks ; and Book-work for those taking one year's course, 400 marks. The examination for Assistants shall embrace the Theory and Practice of the Gifts, two papers ; Theory and Practice of the Occupations, one paper ; Miscellaneous Paper, each paper, 100 marks ; Book-work, 400 marks.

(2) The Director of each Kindergarten sending up candidates to the examination for Assistants' certificates shall be required to certify to the Education Department that the Pease-work and Modelling have been satisfactorily completed.

 THE COURSE OF STUDY FOR KINDERGARTNERS.

ASSISTANTS (JUNIOR YEAR.)

Kindergarten Gifts.

At the conclusion of the course of training for the Junior Year, candidates for examination should be qualified to explain the gifts, their general objects as well as their specialties ; how they are graded and why ; their connection with other branches of kindergarten work ; also a full explanation of the general method of the kindergarten and its application in exercises with the gifts. For this purpose a knowledge of the broad phases of mind development will be necessary, such as feeling, thought and will.

As the gifts have a mathematical foundation, a knowledge of the elements of geometry will be required.

All the practical work must be submitted in Gift Book.

1st Gift. (Balls):—A series of songs that may be used in connection with exercises given with 1st Gift. Not less than six songs. (To be memorized). Classify these songs and give an exercise illustrating each characteristic.

2nd Gift. (Ball, Cube, Cylinder, Cone):—A series of songs that may be used in connection with exercises given with the 2nd Gift. Not less than six songs (to be memorized). Classify songs and give an exercise illustrating each characteristic.

3rd Gift. (Building):—Four original sequences, forms of life ; not less than eight forms in each sequence. Three original sequences in forms of beauty ; not less than eight forms in each sequence.

4th Gift. (Building):—Three original sequences, forms of life; not less than eight forms in each sequence. Three original sequences, forms of beauty; not less than eight forms in each sequence. Building problems for estimating dimensions, cubic contents, etc. not less than four problems. Exercises illustrating balance, surface representation, communicated motion.

5th Gift. (Building):—A list of original forms of life; not less than twelve. Two original sequences, forms of beauty; not less than three changes in each sequence. Five sequences, forms of knowledge: (a) Three sequences of geometrical forms. (b) Fractional divisions, 3rd, 9th, 27th. (c) Fractional divisions, 3rd, 6th, 12th. Development of mathematical prisms; square prisms; triangular prisms. Suggestions for different kinds of numerical exercises that may be given with the 5th Gift. To be worked out thoroughly in Gift Book.

6th Gift (Building):—A list of original forms of life; not less than six forms. Two original sequences, forms of beauty; not less than three changes in each sequence. Building problems; not less than six problems in the list; to be worked out in the Gift Book.

7th Gift (Tablets):—Description, derivation, definition. Position of one tablet; relative positions of two tablets. Mathematical figures that may be produced by combining two tablets; mathematical figures produced by combining three tablets. Five life forms with two tablets; five life forms with four tablets; five life forms with eight tablets; five life forms with sixteen tablets; two life forms with thirty-two tablets; two miscellaneous forms of life. All forms to be drawn in Gift Book.

Forms of beauty (original):—From a given centre, not less than two forms; repetition, not less than two forms; in sequence, not less than two sequences.

Development of all geometrical figures, to three sizes:—Triangle, Square, Oblong, Rhomboid, Rhomb, Trapezoid, Hexagon, Octagon. Define each form.

Comparison of geometrical figures formed from a given number of tablets.

8th Gift. (Sticks).—Candidates must submit not less than three forms with each number of the following combination:—

Combination of sticks into life forms, using four sticks, even lengths, combinations of sticks into life forms using eight sticks, even lengths; life forms with sixteen sticks, different lengths; life forms, using sticks of any length; not less than five forms.

Forms of beauty (original):—From a given centre, not less than two forms; repetition not less than two forms; two sequences, not less than five changes;

9th Gift (Rings):—Relative position of one large and one small ring; relative position of one ring of the three sizes; position of one half-ring; relative position of two half-rings; relative position of one half-ring and one whole ring. Life forms with five rings, not less than three drawn; life forms with ten rings, not less than three drawn; life forms with four

half-rings, not less than three drawn ; life forms with eight half-rings, not less than three drawn ; miscellaneous forms of life with rings, half-rings and quarter rings, not less than three drawn.

Forms of beauty, using rings, half-rings and quarter rings not less than three forms. Miscellaneous forms using rings, half-rings, quarter rings and sticks, of any size, two forms.

Kindergarten Occupation.

Candidates must be qualified to explain the use of the kindergarten occupations, their connections with other branches of the work, the application of the general method of the kindergarten to the exercises given with them. All practical work must be submitted in Occupation Book.

Sewing :—Illustrate an original school of sewing, comprising not less than fifty different figures, logically connected and illustrating the following lines and their combinations :—Vertical lines, horizontal lines, slanting lines of all orders, curves.

Rules for Sewing inventions :—Vertical and horizontal lines of any length :—Two forms of life, two forms of beauty.

Slanting lines, first order, any length :—Two forms of life, two forms of beauty.

Slanting lines, second order :—One form of life, one form of beauty.

Slanting lines, first and second orders combined, any length, form of beauty. An invention in all elements thus far given. An invention in quarter-circles, an invention in half-circles, an invention in circles, an invention using circles, half-circles, quarter-circles. An invention in all elements thus far given. Six miscellaneous inventions, either life or beauty, two of which must be mosaics.

Drawing :—Combine five vertical lines from one to five lengths into a triangle, repeat this triangle in four different positions, combine these four triangles into, a solid figure, a hollow figure, two intermediate figures.

From the solid and hollow figures form four limbs :—First limb—Place the lower half of the solid figures below the lower half of the hollow figure. Second limb—Place the upper half of the solid above the upper half of the hollow figure. Third limb—Place the right half of the solid to the right of the right half of the hollow figure. Fourth limb—Place the left half of the solid to the left of the left half of the hollow figure.

Combine these four limbs into a large solid figure; reversing the position of the limbs, combine them into a large hollow figure.

From the four original triangles make two twisting figures.

From these twisting figures make two limbs thus :—By placing the right half of each figure to the left of the left half of the same figure.

Using each of these limbs twice, make two large figures. In the first figure the original solid will appear ; in the second figure the original hollow will appear.

Repeat these eight rules in:—Slanting lines, first order; squares without to three sizes; half-circles.

Drawing inventions:—1st Set—Vertical and horizontal lines one length:—Two forms of life, two forms of beauty.

Vertical and horizontal lines of all lengths. Two forms of life, two forms of beauty. Slanting lines, 1st order, all lengths, three forms.

Slanting lines, all orders, all lengths, two forms.

2nd—Squares combined with vertical and horizontal lines; squares using all lengths, form of life; right isosceles triangles, all sizes, a form of life, a form of beauty; equilateral triangles, all sizes, a form of beauty; scalene triangles, all sizes, a form of beauty; obtuse isosceles triangles, all sizes, a form of beauty; all triangles combined, a form of beauty; two inventions in quarter circles, one border form; two inventions in half-circles, one border form: two inventions in circles, one border form; an invention in quarter circles, half-circles and circles combined, all sizes, to be colored; all elements thus far given; four miscellaneous inventions; six freehand sketches suitable for children's coloring, to be colored; six free hand sketches for blackboard illustration of song or season, to be colored.

Coloring (crayons or water colors). A sequence of forms showing development and combination of color; six inventions in geometric forms, combined into figures and borders; three designs suitable for oil cloth, carpet or wall paper.

Mat weaving: 1st Set: Strips of uneven widths:—1 up, 1 down, taking narrow with narrow and wide with wide; 1 up, 1 down, taking narrow with wide and wide with narrow. 2nd Set: Strips of equal width:—1 up, 1 down; 2 up, 2 down; 2 up, 1 down; 2 up, 1 down; 1 up, 2 down; 2 up, 1 down, 1 up, 1 down; 3 up, 3 down; 3 up, 1 down; 3 up, 2 down; 3 up, 3 down, in steps of four; 3 up, 1 down, 1 up, 1 down; 1 down, 2 up, in steps of four; 1 down, 2 up, continued steps from right to left; 1 down, 2 up, continued steps from left to right; 1 down, 2 up, continued steps reversed; 1 down, 2 up, angles to centre; 1 down, 2 up, angles outward; 2 down, 2 up, in steps of three; 2 down, 2 up, continued steps from right to left; 2 down, 2 up, continued steps from left to right; 2 down, 2 up, continued steps reversed; 2 down, 2 up, angles to centres; 2 down, 2 up, angles outward.

Free Weaving:—Book-mark—Two vertical strips with cross strips; Napkin ring—four vertical strips and cross strips; Picture frame—5 x 5 inches; Basket— with or without cover; Two miscellaneous forms.

Mat inventions:—Two inventions in twos; two inventions in twos and ones; two inventions in threes; two inventions in threes and ones; two inventions in threes and twos and ones; six miscellaneous inventions (forms of beauty, loose strips not allowable).

Folding:—An original sequence of life forms suitable for children 4 years of age.

Folding (salt-cellar ground form), salt-cellar, star, King's crown, Queen's crown, pepper box, satchel. Folding (double salt-cellar ground form), cap, muff, boots, bobbin, shirt, trousers.

An original set of life forms suitable for seniors, not less than six forms.

Folding (tablecloth, ground form). An original sequence of life forms not less than eight forms.

Table cloth ground form :—Table cloth, table, handkerchief case, windmill, vase

Six miscellaneous forms of life.

Folding (salt-cellar ground form), forms of beauty.

The fundamental form is given and by a change in three directions, various forms are produced :—From without, turned inward, from within, turned outward, combination. From these rules form two sequence forms of beauty, not less than six forms.

Tablecloth forms of beauty :—Tablecloth forms of beauty consist of five modifications, hexagon, trapezium from within turned outward, trapezium from without turned inward, rhomb, rhomboid. Arrange sequences in the book in symmetrical forms.

Inventions required :—Eighteen original inventions from salt-cellar ground form. Eighteen original inventions from tablecloth ground form. One combination not less than eight original forms combined in one large figure. One original set of forms from circular paper, not less than eight forms. One original set of forms from triangular paper, not less than eight forms.

Cutting :—Right isosceles ground form, not less than eighteen figures in logical sequence. Equilateral triangle, ground form, not less than eighteen figures in logical sequence. Circular paper, not less than twelve forms in logical sequence. Freehand cutting, not less than twelve forms.

Parquetry :—Two forms using circles, a form of life, a form of beauty. Two forms using squares, a form of life, a form of beauty. A form of beauty using right isosceles triangles (a border). A form of beauty using equilateral triangles. A form of beauty emphasizing color by contrast and combination—any form may be used (a mosaic).

Kindergarten pease work :—With one stick, a list of objects, not less than five. With three sticks, Triangles, right isosceles, acute isosceles, obtuse isosceles, scalene triangle, obtuse scalene, equilateral triangle ; triangular prism, right and oblique ; tetrahedron ; One form of life from a triangular prism ; one form of beauty from the equilateral triangle.

Quadrilaterals :—Square ; square prism, right and oblique ; pyramid from a square base ; four life forms from a square prism ; four forms of beauty from a square centre.

Rectangular parallelopiped ; two forms of life from rectangular parallelopiped ; rhombic prism ; rhomboidal prism, trapezoidal prism ;

trapezium ; pentagonal prism ; two forms of life from pentagonal prism ; one form of beauty from pentagonal centre.

Hexagonal prism ; a life form from hexagonal prism ; two forms of beauty from hexagonal centre.

Octagonal prism ; two forms of life from octagonal prism ; two forms of beauty from octagonal centre.

Six miscellaneous forms of life.

Six miscellaneous forms of beauty (double).

Kindergarten modelling :—Make each of the following typical forms in solid, half-solid and plane : Sphere, oblate spheroid, prolate spheroid, ovoid, cube, cone (solid form), frustrum, conoid, cylinder (solid form). Make one object from each of the above forms.

Make one combination of the solid, half-solid and plane from each type.

Six miscellaneous inventions made large :—One large ornamental vase, one fruit basket and fruit, two animals.

Songs, Games and Stories :—Songs and games ; candidates should be qualified to explain the general objects of the songs and games, the general value of the following groups of songs, with illustrations : finger plays, nature songs, trade songs, sense songs, songs of the Knights, light songs. The significance of gesture and the principles by which they should be guided in the selection of songs and games. Stories : candidates should be qualified to explain the value of stories, to classify them and show by what principles they should be guided in their selection.

Natural Science :—Candidates should possess a knowledge of elementary science, particularly of animals, plants, earth, air and water, and should be able to illustrate the interesting portions of these subjects in stories and conversations with the children. They are required to know the nature and habits of animals that come within the experience of children, such as common quadrupeds, horse, cow, sheep, dog, cat, squirrel ; common birds, pigeon, duck, sandpiper, robin, bluebird, song sparrow, canary, woodpecker and crow ; fish, butterflies, bees, flies, spiders, frogs, snails, crickets and ants. They are required to know the different parts of a plant and their functions ; also the structure and life of six common plants such as the aster, buttercup, violet, trillium, marguerite, and dandelion ; and three common trees, evergreen, oak and maple.

The miscellaneous paper for the first year's training shall include questions on natural science, songs, games and stories, general method of mind development and its application in the kindergarten, the life of Froebel.

Books that bear directly upon the junior course :—Love and Law in Child Training, by Emilie Poulsson ; Educational Reformers, Quick (last edition) ; Reminiscences of Froebel, Baroness von Bulow ; Mutter und Kose-Lieder, Froebel ; Education by Work, Baroness von Bulow ; Guide to Gift, Mad. Kraus Boelte ; Guide to Occupation Mad. Kraus Boelte ; Fairy Land of Science, Buckley ; Magic Glasses, Buckley ; Botany, Spot-

ton : A Study of Child Nature, Elizabeth Harrison ; Froebel's Letters, Michaelis and Moore ; A Guide to Nature Study, Crawford ; The Student's Froebel, Herford ; Froebel's Gifts, Kate D. Wiggin and N. Smith ; Froebel's Occupation, Kate D. Wiggin and N. Smith ; Kindergarten Principle and Practice, N. Smith ; Dickens as an Educator, James L. Hughes ; Froebel's Educational Laws, James L. Hughes.

Books that may be consulted by juniors :—In the Child's World, E. Poulson ; In Story Land, E. Harrison ; Sundays at Yoho, Campbell ; Tanglewood Tales, N. Hawthorne ; Wonder Book, N. Hawthorne ; Myths and Mythmakers, Fiske ; Education of Self Activity, Courthope Bowen ; Lectures to Kindergartners, E. Peabody ; Handwork and Headwork, Baroness von Marenholtz Bulow ; Children's Rights, N. A. Smith ; The Children of the Future, N. A. Smith ; Stories of Star Land, Procter ; Fairy Tales, Anderson ; Our Native Trees, Keeler ; Birdcraft, Mabel Osgoode Wright ; Birds of Ontario, McIlwraith

Course of study for kindergarten directors :—Philosophy of Froebel, Psychology, Advanced Theory and Practice of Froebel's Gifts, Advanced Theory and Practice of the Occupations, Die Murter and Köse Lieder ; The History of Education—Quick's Educational Reformers ; Botany (see regulations) ; Natural Science—Life and Her Children and Winners in Life's Race, Buckley.

This course in natural science includes a study of the universal laws of development as applied to both nature and mind. It also includes a practical knowledge of natural history and microscopic analysis.

Music, Drawing, Physical culture.

A course of reading, including the study of one standard work of literature.

Books that may be consulted by seniors :—Education by Development, Froebel ; Education of Man, Froebel ; Pedagogics of the Kindergarten, Froebel ; Symbolic Education, S. E. Blow ; Letters to a Mother, S. E. Blow ; Two Children of the Foot-hills, E. Harrison ; Froebel's Educational Laws, J. L. Hughes ; Mottos and Commentaries of Froebel's Mother Play, S. E. Blow ; Psychologic Foundations of Education, Dr. W. T. Harris ; The Life of Froebel, Denton Snider ; The Infant Mind, Preyer ; Child Study, Sully ; Psychology of Infancy, Dr. F. Tracy ; Psychology, Dr. John Dewey, Chicago University ; The Study of the Child, Taylor.

SYLLABUS
OF
Studies and Regulations
FOR
Kindergartens



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THE KINDERGARTEN.

THE PURPOSE OF THE KINDERGARTEN.

1. The purpose of the Kindergarten Course is to prepare the teacher in the theory and the art of organizing, governing, and instructing the pupils of the Kindergarten.

The Kindergarten combines the nurture of the home with the rational discipline of the School, and thus forms the necessary introduction to the Primary School. Through the Songs, Games, and Stories, ideals of right living on the plane of the child's life, are made clear and self-compelling; and, through the Material, the intellectual powers are nourished, the senses are trained, interest is stimulated, constructive imagination is cultivated, and a basis is laid for the formation of good intellectual, moral, and physical habits. The Kindergarten thus preserves the freedom and play spirit of early childhood and at the same time prepares the child to be an intelligent, orderly, and industrious pupil of the school.

TRAINING SCHOOLS.

2. The Provincial Kindergartens for the training of Directors are situated at Ottawa and Toronto. Any Public School Kindergarten may train Assistants.

SESSIONS AND TERMS.

3. The Session of the Kindergarten will begin on the third Tuesday of September and end on the 30th day of June; and will consist of two terms; the first from the opening of the school until the 22nd day of December, and the second from the 3rd day of January until the 30th day of June.

GRADES OF CERTIFICATES.

4. The Education Department issues two grades of certificates: Assistants' Certificates, valid for two years, and Directors' certificates, valid during good conduct. No one without a Director's certificate is eligible to take charge of a Kindergarten.

CONDITIONS OF ADMISSION FOR ASSISTANTS.

5.—(1) Application for admission to the course of training for Assistants shall be made to the Director in charge of the Kindergarten, not later than the second Tuesday of September.

Each applicant shall send with the application:

(a) A certificate from competent authority that she will be at least eighteen years of age on or before the close of the Session.

(b) Her certificate of having passed the July Departmental Examination for Entrance into the Normal Schools.

(c) A deposit of \$5, which will be returned to the teacher-in-training before the end of October, but which will be forfeited if the applicant fails to attend without giving satisfactory notice of withdrawal before the opening of the Training School.

(2) Each applicant on presenting herself at a Training School shall submit to the Director thereof:—

(a) A certificate from the Principal of an Approved School that she has completed satisfactorily the subjects of the Lower School prescribed for the Normal School Entrance Examination. Failing this certificate, she shall pass at a Normal School in September immediately before the beginning of the session, the examination prescribed in 5 (3), pp. 4-5 of the Normal School Syllabus of Studies.

(b) Proof that she is able to sing, and to play simple music at sight on the piano or organ.

(c) A certificate from a clergyman or other competent authority that she is of good moral character.

(d) A certificate from a physician that she is physically able for the work of a teacher, and especially that she is free from serious pulmonary affection and from seriously defective eyesight and hearing.

(3) A teacher-in-training who, in the opinion of the Director, is unduly defective in scholarship or in natural aptitude, or whose progress or conduct is unsatisfactory, may be dismissed by the Director at any time during the session from further attendance at the Training School.

CONDITIONS OF ADMISSION FOR DIRECTORS.

6.—(1) Application for admission to the course in training for Directors shall be made to the Deputy Minister of Education, not later than the second Tuesday of September, on a form to be supplied by the Department of Education.

2. Applicants must be the holders of Assistants' Certificates or have a Second Class Professional Certificate.

CERTIFICATES AND EXAMINATIONS.

1. *Assistants.*

7.—(1) Any person who attends a Kindergarten for one year and completes satisfactorily the course prescribed for Assistants may, on the recommendation of the Director of such Kindergarten, endorsed by the Public School Inspector in whose inspectorate the Kindergarten is situated, be granted an Assistant's Certificate.

(2) The examination for Assistants shall include four papers:—One on the Theory and Practice of the Gifts, one on the Theory and Practice of the Occupations, one on Songs, Games, and Stories, and one on Methods; each paper valued at 300, and the book work at 1,200.

(3) There shall be one Sessional Examination conducted by the Training Kindergartner, and a final examination conducted by a committee of Directors appointed from the Kindergartners of the Province by the Education Department.

(4) The marks for each paper at these examinations shall be divided as follows: One-fifth of the maximum for the Sessional examination, one-fifth for the Sessional records, and the remainder for the Final examination.

(5) Any candidate who obtains 40 per cent. of the marks in each subject, and 60 per cent. of the total marks, shall be entitled to an Assistant's Certificate.

II. *Directors.*

8.—(1) The holder of an Assistant's Certificate or the holder of a Second Class Provincial Certificate, on attending a Provincial Kindergarten for one year, and on passing the prescribed examinations, may be granted a Director's Certificate.

(2) The examination for Directors shall include six papers, Psychology and the Philosophy of Froebel as embodied in his teaching, History of Education, Theory and Practice of the Gifts and Occupations, Mutter and Kose-lieder, Nature Study, and Child Study and Methods, each valued at 300.

(3) There shall be one sessional examination and one final examination conducted by the staff and the Principal of the Normal School.

(4) The marks for each paper at these examinations shall be divided as follows: One-fifth of the maximum for each paper at the sessional examination, one-fifth for the sessional records, and the remainder for the final examination.

(5) The marks counted in estimating the final standing of the teacher-in-training in Observation and Practice-teaching shall be those awarded her in these subjects during the Session and more especially towards the close thereof, after an introductory course of lessons in each. The maximum marks for Practice-teaching and Observation shall be 900.

(6) In the case of students taking the entire course in one year, a maximum of 1,200 may be awarded for Book-work.

(7) There shall be sessional examinations in Music, Art, and Physical Culture, each valued at 100.

(8) Any candidate who obtains 40 per cent. of the marks in each subject, 60 per cent. of the marks for teaching, and 60 per cent. of the total of the marks, may be awarded a Director's Certificate.

COURSE FOR ASSISTANTS.

I. KINDERGARTEN GIFTS.

9. This course shall include the following:—A knowledge of the gifts; their general objects as well as their specialties; how they are graded and why; their connection with other branches of Kindergarten work.

I. *Symbolic Gifts, including the First and Second Gifts.*

A. Theoretical Points for Discussion.

- (1) Description of each gift.
- (2) Analysis of the first gift:—Plaything; certain class of playthings; why color, form, size, number, string; language.
- (3) Analysis of the second gift:—Plaything; certain class of playthings; why form, size, number, string; language.
- (4) Method of presentation and use:—In the first gift: Play method, single object, classification of different possibilities; in the second gift: Play method, from one type to three general types, classification of different possibilities.
- (5) Philosophical and pedagogical principles implied:—Unity; self-activity; development; contrast; basis of experience; the concrete, the general to the particular.
- (6) Mathematical basis:—Why types; forms suggested by the play defined.
- (7) Exercises suggested:—Plays emphasizing activity; plays emphasizing imitation or analogy; plays emphasizing recognition of qualities; twirling games.
- (8) Exercises originated by the students.

(9) REQUIRED READING:—

Chapter on the Ball, *Pedagogics of the Kindergarten*, Froebel.

Chapter on Infancy, *Froebel's Education of Man*.

Chapter on Unity, *Froebel's Educational Laws*. J. L. Hughes.

Chapter on Symbolism, *Symbolic Education*. S. E. Blow.

The first and second songs in *Blow's Commentaries of the Mother Play*.

B. Practical Work.

First Gift:—Not fewer than six typical songs that may be used in connection with the different classes of exercises suggested above, to be submitted in the Gift Book.

Second Gift:—Not fewer than eight typical songs that may be used in connection with the different classes of exercises suggested above, to be submitted in the Gift Book.

II. *Building Gifts.*

A. Theoretical Points for Discussion.

- (1) Description of Building Gifts.
- (2) Analysis:—Discussion of building activities; race constructive activities; imitative play; organism in playthings; divisible material; number; measure as implied in building; decoration, etc.
- (3) Method of presentation and use:—Discussion of sequence: different illustrations of sequence in forms of objects and in forms of

beauty, simple relationship, variation of one idea, memory sequence; different kinds of exercises, experimental, imitative, suggestive, memory, dictation, free invention.

(4) Philosophical and Pedagogical principles:—Organic unity; relation of child and race; study of imitation; cause and effect; continuity; concept-making stage.

(5) Mathematical basis:—Solid and surface forms defined; mathematical basis of building problems.

(6) Exercises suggested by the director.

(7) Exercises originated:—Building forms; decorative forms, borders, units.

(8) Required Reading and Quotations:—

Pedagogics of the Kindergarten:—Chapters on the Third and Fourth Plays.

Education of Man:—pages 72 to 79 and 108 to 111.

Commentaries of the Mother Play:—The Weather Vane, The Target, The Carpenter, The Bridge, The Little Artist.

B. Practical Work.

Third Gift:—Four original sequences in forms of life, not fewer than six forms in each sequence; three original sequences in forms of beauty, not fewer than six forms in each sequence.

Fourth Gift:—Three original sequences in forms of life, not fewer than eight forms in each sequence; three original sequences in forms of beauty, not fewer than eight forms in each sequence.

Building problems for estimating dimensions, not fewer than four problems.

Exercises illustrating balance, surface representation, and communicated motion.

Fifth Gift:—A list of original forms of life, not fewer than twelve; five sequences of beauty and of knowledge; development of square and of triangular prisms.

Suggestions for different kinds of numerical exercises that can be given with the Fifth Gift.

Sixth Gift:—A list of original forms of life, not fewer than six forms; two original sequences in forms of beauty, not fewer than three changes in each sequence; building problems, not fewer than six problems in the list.

Outlines of all exercises and sequences in the practical work with the Building Gifts to be placed in the Gift Book.

III. *Laying Gifts.*

(Tablets, sticks, rings, and seeds.)

A. Theoretical points for discussion.

- (1) Analogy or Symbolism.
- (2) Picture representation.
- (3) Decorative possibilities.
- (4) Mathematical basis.

B. Practical Work.

Seventh Gift (Tablets):—Derivation; definition; position of one tablet; relative position of two tablets to each other; mathematical figures that may be produced by combining two tablets; mathematical figures produced by combining three tablets; five life forms with two tablets; five life forms with four tablets; five life forms with eight tablets; two life forms with sixteen tablets.

All forms to be drawn in Gift Book. Each point in the development to be illustrated by any one form of tablet.

Decorative forms (symmetrical design):—Three designs emphasizing repetition, as in borders; three designs emphasizing units; two sequences, symmetrical designs; two designs emphasizing *all-over* repeats.

All forms to be drawn in Gift Book, illustrated by any one form of tablet.

Development of geometrical figures to three sizes:—Triangle, square, oblong, rhomboid, rhomb, trapezoid, hexagon, octagon; define each form; illustrate by any one form of tablet; comparison of geometrical figures formed by a given number of tablets of any one form.

Eighth Gift (Sticks):—Not fewer than three forms must be submitted with each of the following combinations:—Combination of sticks into life forms, using four sticks, even lengths; combination of sticks into life forms, using eight sticks, even lengths; life forms with sixteen sticks; life forms using sticks of any length.

All forms to be drawn in the Gift Book.

Decorative design:—Three designs emphasizing repetition as in borders; three designs emphasizing units; two sequences, symmetrical design.

Ninth Gift (Rings):—Relative position of one large and one small ring to each other; exercise in the discovery of the relative position of the different sizes of rings to one another, one ring of each size; relative position of two half-rings to each other; relative position of one half-ring and one whole ring to each other; life forms with five rings, not fewer than three to be drawn; life forms with ten rings, not fewer than three to be drawn; life forms with four half-rings, not fewer than three to be drawn; miscellaneous forms of life with rings, half-rings and quarter-rings, not fewer than three to be drawn; symmetrical designs using rings, half-rings and quarter-rings, not fewer than three forms; miscellaneous forms using rings, half-rings, quarter-rings, and sticks of any size, two forms.

II. KINDERGARTEN OCCUPATIONS.

10. This course shall include a knowledge of the Froebelian Occupations, and their connection with other branches of the work.

Theoretical points for discussion.

- (1) Description of each Occupation.
- (2) Fundamental basis of each Occupation.
- (3) Relation to race activities.
- (4) Art basis.
- (5) Relation of each Occupation to the harmonious growth of the child.

Practical work to be submitted in Occupation Book.

I. *Sewing.*

Illustrations required in sequence of Sewing.

First Development.

The square, the objective point.

Straight Lines.

- (1) Straight lines of one length.
- (2) Variations in position.
- (3) Variations in length.
- (4) Horizontal lines of one length.
- (5) Horizontal lines, variations in position.
- (6) Horizontal lines, variations in length.
- (7) Right angles, repeat the order in numbers 1, 2, and 3 above.
- (8) Square, repeat the order in numbers 1, 2, and 3, above.

Other forms of development:—Oblong, repeating the above order; square on the diagonal, oblique lines, first degree, repeating the above order; rhombus, oblique lines, second degree, repeating the above order; miscellaneous combinations, the student indicating the combination used, and repeating to the third point as above.

Sewing Inventions.

General Plan:—(a) From a centre; (b) a border; (c) an "all over" design.

Forms of invention:—Vertical lines of one length following the general plan; one in vertical lines of all lengths following the general plan; one in vertical and horizontal lines of one length following the general plan in (a) and (b); one in vertical and horizontal lines of all lengths combined, following the general plan in (a) and (b); one in vertical, horizontal and slanting lines of one length, following the general plan in (a), (b), and (c); three inventions in any form using all the elements (vertical, horizontal and slanting lines of squares and oblongs), of any length, following each part of the general plan.

2. *Drawing.*

Combine five vertical lines from one to five lengths into a triangle; repeat this triangle in four different positions; combine these four triangles into (1) a solid figure, (2) a hollow figure, (3) two intermediate figures; from the solid and hollow figures form four limbs: first limb, placing the lower half of the solid figure below the lower half of the hollow figure; second limb, placing the upper half of the solid above the upper half of the hollow figure; third limb, placing the right half of the solid to the right of the right half of the hollow figure; fourth limb, placing the left half of the solid to the left of the left half of the hollow figure; combine these four limbs into a large solid figure; reversing the position of the limbs, combine them into a large hollow figure; make from the four original triangles two twisting figures; make from these twisting figures two limbs, thus: by placing the right half of each figure to the left of the left half of the same figure; make two large figures by using each of the limbs twice. In the first figure the original solid will appear; in the second figure the original hollow will appear.

Apply these directions to any three of the following elements:—Horizontal lines, right angles, slanting lines of the first order, slanting lines of the second order, slanting lines of the first and second order, slanting lines of all orders, half circles, circles.

Drawing Inventions.

Types of Inventions:—Vertical and horizontal lines of one length, one form of life, and one form of beauty; vertical and horizontal lines of all lengths, one form of life, one form of beauty; slanting lines, first order, all lengths, one form; slanting lines, all orders, all lengths, one form; right isosceles triangles, all sizes, one form of life, two forms of beauty; equilateral triangles, all sizes, one form of beauty; two inventions in half-circles, one border form; two inventions in circles, one border form; one invention in quarter-circles, half-circles, and circles combined, all sizes.

3. *Art Work.*

Simple lines of pictorial composition to be applied to all work, *e.g.*, the paper on which a drawing is to be made should suit it in size and proportion; attention to be paid to variety in space-division.

The following mediums should be used:—Brush and ink, water colors, crayons, charcoal, and soft lead pencil.

Types of Work:—Nature drawing including the drawing of grasses, sprays of leaves and flowers, and fruit on the branch; landscape; figure pose; animal studies; still-life studies, including common objects, single and in groups; pictorial illustrations; design: (a) The decorative treatment of nature and other studies, making a clear distinction between this treatment and pictorial drawing; (b) the making of units of abstract “spots” and “spots” derived from

nature, using in surface and borders; color schemes from nature; color harmonies and their discovery in nature; application of color harmonies to design.

Color Book.

The following classification of color with definitions, to be shown with surface paper:—Scale of standard colors; scale of tones of one color; scale of relative hues; contrasted, dominant, analogous, complementary, and perfected harmonies.

Illustrations to be mounted on grey cardboard.

BOOK OF REFERENCE.—

Mark M. Maycock: *A Class Book of Color*, Teacher's edition.

4. *Weaving.*

Two movements in weaving:—(1) Following the line of the warp to give vertical effects; (2) varying from the vertical by a movement right or left on the line of the warp to produce diagonal effects.

First Series:—Vertical effects, regular combinations as one and two, three and two, two and four, etc.

Second Series:—Variations from this basis, producing stripe or bar, as two and one and one, three and one and one and one, three and three and one and one, not fewer than eight mats in the series.

Third Series:—Diagonal effects, using basis of first and second series for these, with possible variations in position, as right to left, left to right, etc., not fewer than ten mats in this series.

Miscellaneous Mats:—Borders, four mats; all over repeats, four mats; units of design, two mats; conventional repeats, two mats.

Note.—Complementary, contrasted, dominant, and analogous harmonies should be used with these.

5. *Folding.*

Salt-cellar ground form:—Salt-cellar, star, king's crown, queen's crown, paper box, satchel; an original sequence of life forms suitable for children four years of age; five or more inventions in life forms in the salt-cellar ground form; eight inventions in forms of beauty from the salt-cellar ground form; double salt-cellar ground form: cap, muff, boots, bobbin, shirt, trousers; inventions in life forms from the double salt-cellar ground form; table-cloth ground form: table-cloth, table handkerchief case, windmill, vase, boat with sail, chicken, double boat, boat with box, loose box, close box, picture frame, mirror, chinese junk; the table-cloth ground form, an original sequence of life forms suitable for children six years of age, not fewer than six; five sequences of forms of beauty, showing hexagons, trapeziums, in two positions, rhomboid, rhomb; original inventions from the table-cloth ground form, twelve or more; a series of forms from the triangular basis, not fewer than eight.

Encourage the repetition of one form in a mosaic.

6. *Cutting.*

Forms:—Right isosceles triangle, the ground form, a logical sequence of not fewer than eighteen figures; equilateral triangle, the ground form, a logical sequence of not fewer than twelve figures; freehand cutting, not fewer than twelve figures.

7. *Pease Work.*

Forms:—With one stick, a list of objects not fewer than five; simple life forms, using two, three, and four sticks, without enclosure of space; four life forms from each of the quadrilaterals; one or more life forms from each of the triangles; one or more life forms from each prism; one form of beauty from each of the following figures: Square, triangle, pentagon, hexagon, octagon.

8. *Modelling.*

Typical forms, the other forms to be evolved in logical process from the sphere:—Sphere, oblate spheroid, prolate spheroid, ovoid, cube, cone, frustum, conoid, cylinder; one form to be modelled from an object based on each of the above types; one form, free invention, based on each of the above types; three miscellaneous inventions made large, such as a vase, a fruit basket, fruit, an animal.

III. SONGS AND GAMES.

11. Songs and Games:—This course shall include a study of the general objects of the songs and games from Froebel's standard as indicated in the Mother Play, using the following songs as types:—The Taste, Naming the Fingers, The Bird's Nest, The Two Gates, The Little Gardener, The Carpenter, The Light Bird, The Knights, and The Good Child.

Theoretical Points for Discussion.

- (1) The significance of gestures.
- (2) The principles by which teachers should be guided in the selection of songs and games.

IV. STORIES.

12. Candidates should be qualified to explain the value of stories, to classify them, and to show by what principles they should be guided in their selection.

V. NATURE STUDY.

13. This course includes the following:—A knowledge of the meaning of Nature Study and of its scope; the study of Froebel's Methods; (see commentaries on the Bird's Nest, The Two Gates, The

Little Gardener); a review of the elementary Science course prescribed for the Lower and Middle Forms of the High School, for the purpose of a deeper sympathy and a clearer understanding of Nature through a study of the underlying laws of her development, such as adaptation of structure to habit and environment, the interdependence of things in Nature, etc.

Frequent excursions should be taken to suitable places where the materials of Nature Study can be observed and studied in their natural environment; and the habit of keeping records of observation should be established.

BOOKS OF REFERENCE.—

Hodge: Nature Study and Life.

VI. METHODS.

14. This course includes an elementary explanation of the processes of mental development, with practical application to the exercises of the Kindergarten; and a study of the life of Froebel.

REFERENCES.—

E. Wiebé: Paradise of Childhood
Courthope Bowen: Froebel.

Note.—The references to the Mother Play are not intended to cause the Assistants to make an intensive study of this work. They are merely suggestions to the trainer for developing Froebel's methods of teaching.

VII. PHYSICAL TRAINING.

15. The special object of the course in Physical Culture is to enable the teacher to make proper provision for the physical training of her pupils. With Physiology and Hygiene (School and Personal) as a basis, it prescribes and directs rational forms of exercises for the attainment and maintenance of health, the development of a symmetrical body, and the formation of habits of grace and ease in muscular movement. To this end the teacher-in-training should be made familiar with the German, Swedish, French (Delsarte), and American systems of physical training. The course includes:—

Breathing exercises: Running, hopping, quick walking.

Leg exercises: Standing positions, fundamental stride, etc.; standing with flexions of ankles and knees; fall-outs; charges; fencing positions and kneelings.

Arm exercises: Starting position, hands at side, at shoulders, at thrust, at upward bend, at formal bend, movements of raising, swinging, rotation, circling, flexion, and intension.

Neck and trunk exercises: Flexion, extension, and rotation.

Free exercises: All the simpler forms from fundamental positions; also compound movements of two parts in the same, opposite, and right-angled directions.

Tactics: Facings and steppings; marching in various formations of rank, file, column, etc.; fancy steps, following and changing steps, etc.; running.

Special exercises for correcting the individual defects that may be found among children.

Recreative gymnastics, or gymnastic games; indoor and outdoor games.

COURSE FOR DIRECTORS.

I. APPLIED PSYCHOLOGY AND THE PHILOSOPHY OF FROEBEL.

16. The special object is to give a simple course in Applied Psychology with practical illustrations and to make the student familiar with Froebel's educational principles. The course includes the following topics:—

(1) Aims of education; individual and social phases of education, their relation; the Froebelian ideal of Education.

(2) The educational process, its nature and relation to the end and means of education; development through self-activity; symbolic expression; play as an educational factor.

(3) Psychology: Field of Psychology; methods of psychological enquiry; the use of psychology to the teacher.

(4) Habit: Automatic and reflex action; primary instincts; development of reflexes; formation of habits and the development of motor control; the relation of habit to will; the intellectual and ethical aspects of habit.

(5) Attention: Nature of attention as a process; conditions of attention; forms of attention; discrimination; association; interest, its nature and relation to attention; methods of securing and retaining attention; obstacles to attention.

(6) Apperception and Retention: Meaning of the terms; their relation; mental assimilation, growth and development.

(7) Sensation: Distinctive characteristics of sensation; relation of sensation to knowledge; neural basis of sensation; classification of sensations.

(8) Perception: Distinctive characteristics of perception; genesis and development of perception; training of perception and formation of habits of observation.

(9) Imagination: conditions of re-presentation; distinctive characteristics of imagination; relation of image to idea; mode of operation of imagination; reproductive imagination; productive imagination; training of imagination.

(10) Memory: Distinctive characteristics of memory; conditions of retention, recall, recognition; training and development of memory processes.

(11) Conception: Distinctive characteristics of conception; relation of concept and image; the function of language in the formation of concepts.

(12) Judgment and Reasoning: Distinctive characteristics of judgment; relation of concept and judgment; the distinctive characteristics of reasoning; training in judgment and reasoning.

(13) Affective elements of Consciousness: elementary forms of affection; affection in its relation to sensation, perception, imagination, memory, and reasoning.

(14) Emotion: Distinctive characteristics of emotion; conditions of emotional development; classification of emotions; training of emotions.

(15) Development of the Will: Impulsive and volitional acts distinguished; distinctive characteristics of volition; definition of character; means of character development.

BOOKS OF REFERENCE—

Bett's: The Mind and its Education, \$1.00.

Horne: *Philosophy of Education*.

Froebel: *Education of Man*.

James: *Talks to Teachers*.

II. GIFTS.

17. The special object of this course is to give a knowledge of the educational value of the Gifts and of their practical use in the Kindergarten. The course includes the following topics:—

A study of the Gifts as a whole: types of form, number, and relationship; relation of creative activity in form, number, and relationship; philosophy embodied in the Gifts; psychological study of Play.

Symbolic Gifts—First and Second Gifts.

Study of child symbolism and racial symbolism; the meaning of play; First Gift: application of symbolism to the education of little children; practical exercises with students for classification of games; recording good typical exercises in Gift Books; Second Gift: study of the four typical forms, a basis for classification, relation to crystallography, relation between force and form; place of the typical fact in the Kindergarten; the law of the Mediation of Contrasts and the method of application in the Kindergarten; the relation of the Second Gift to the child in activity games, in symbolic games, and in games emphasizing form, classification, and construction.

Building Gifts.

This course includes a study of the following:—The investigative instinct in the race and in the child; the building instinct in the race and in the child; the history of the development of architecture in the race; relation of form, number, and balance to creative work; correspondence between Building Gifts and organic development; correspondence between Building Gifts and mental development; method of using the Building Gifts; different types of exercises.

Laying Gifts.

This course includes a study of the following:—Analysis of surface forms; picture making, its significance to the race and the child; psychological and philosophical significance of; method of using the Laying Gifts; different types of exercises.

BOOKS OF REFERENCE—

1. Froebel: *Pedagogics of the Kindergarten*.
2. Froebel: *Education of Man*.
3. Snider: *Play Gifts*.

III. OCCUPATIONS.

18. The special object of this course is to give the students a knowledge of the educational value of the Occupations and of their practical use in the Kindergarten. It includes the following topics:—The instinct of creative self-activity, its place in the development of conscious individuality; the analysis of Play and Work, and the process of development from one to the other; study of the Occupations as types of the Arts and Industries of the race; methods of expression, imitation, repetition, contrast, harmony; unity of Life the Goal, (a) the necessity of emphasizing a logical process, (b) law of contrast and mediation; discussion of methods in the Occupations; the supplementary Occupations, their value and limitations.

Occupation of Cutting.

Basis for Work:—Necessary elements, beauty, utility; sequence necessary to develop the idea of relationship; methods of expression: repetition, grouping, symmetry, harmony.

Different kinds of cutting:—Froebel's sequence of cutting, valuable for symmetry and sequence; nature and object cutting, illustrating Songs, etc.; free cutting, its value and limitations.

Students work in:—Outline Cutting, with straight lines, with circular lines; flowers, seeds, etc., to be formed into borders; leaf cutting, freehand, of well known leaves, these to be arranged into borders and symmetrical designs; typical trees, used for artistic designing of borders and symmetrical designs; harmony work, dissimilarity united under a common thought, balance in every picture to be observed; landscape work: simple, earth and sky; with one dominant object; use of trees.

Occupation of Sewing.

Sewing, a logical series of creations through lines and the combinations of lines; applications of method to Sewing; imitation, repetition, contrast, symmetry, and harmony in creation; two kinds of cards, those used for borders, those used for figures; points to be noticed in the creation of a series or sequence, spacing, proportion, color, contrast to mediation.

Borders, how to evolve the series from the children:—Vertical lines, even spacing; vertical lines, broken spacing, (grouping); vertical lines, uneven length. (grouping); combining of vertical and horizontal lines to form a border; combining lines to form squares of different sizes to form a border; slanting lines (pass through the same process as the vertical and horizontal); transforming these into objects of nature and forming them into a border; the borderwork to be followed by symmetrical designing.

IV. ART.

19. The special object of Art is to enable the students to teach the Drawing and Coloring in the Kindergarten, to sketch sufficiently to be able to illustrate on blackboard or paper and to broaden their culture through an appreciation of the beautiful in form and color. The course includes the following topics:—Representation: Froebelian drawing, method of teaching; outline drawing, method of teaching; freehand drawing, method of teaching; how to use the various mediums, pencil, charcoal, crayons, ink with pen and brush; the drawing of flat objects such as leaves, grasses, etc.; the drawing of common spherical, cylindrical and rectangular solids, illustrating the principles of freehand perspective; simple landscapes from nature and imagination; illustrations of Froebelian songs and games.

Water Colors:—Theory of Color; the solar spectrum; the six standard colors; the intermediate hues; the tints and shades of each color in graduated scales; the pigmentary theory; primary, secondary, and tertiary colors; complementary colors; color harmony; dominant, analogous, and complementary; the neutral value scale.

Decorative Design:—Principles that determine the rhythm, balance, and harmony of tones, measures and shapes; borders and surface designs; outlining the development of architecture and ornament.

Picture:—The critical study of a few masterpieces.

BOOKS OF REFERENCE—

Froebel's Education of Man, pp. 75-78; 288-294.

Prang's: Text-books of Art Education, 7 books.

Arthur W. Dow:—Composition.

Mark M. Maycock: A Class Book of Color—Teacher's Edition.

V. MOTHER PLAY.

20. The special object of the course is a study of the educational principles and practice of Froebel as embodied in the "Mutter and Kose-Lieder." Throughout the course the relation between the Mother Play and other subjects of the curriculum such as Psychology, Child Study, and the practical work of the Kindergarten, should be constantly observed. It includes the following topics:—An analysis of the Mother Play as a whole; the history of its development; the educational aim of the book; its value in the Kindergarten and in the Training School; a detailed study of each typical song, its educational principles and practical application; the development of typical experiences through groups of songs.

BOOKS OF REFERENCE—

S. E. Blow: Mottoes and Commentaries of Froebel's Mother Play.

S. E. Blow: Songs and Music of Froebel's Mother Play.

S. E. Blow: Letters to a Mother.

S. E. Blow: Symbolic Education.

VI. STORIES.

21. The special object of the course is to enable the students to understand the value of stories, to make suitable selections, and to tell them successfully. It includes the following topics.—The educational value of stories; the study of the different classes of stories according to subject matter and suitability to the age of children; the analysis of selected stories; the necessary elements in valuable stories; discussions of the proper use of humour, the negative element, and rhymes; how to tell a story.

Each student shall write two original stories, one subject to be selected by the student and one by the teacher; each student to have a book wherein will be kept lists of typical stories, classified according to the principles of Froebel's Mother Play, including stories for special festivals.

VII. HISTORY OF EDUCATION.

22. The object of the course in the History of Education is to widen the professional outlook and rationalize school practice through the discussion of the development and the merits and the defects of educational theories. It presupposes an historical background and discusses movements rather than individuals. The course includes the following topics:—

Outline of the History of Education prior to the Fifteenth Century: This should be a brief survey of those conditions and forces which were specially significant in determining later important movements. It should contain concise references to the following topics:—Education in its simplest forms among primitive peoples; the rise of the teaching class and the beginnings of school organization; the aim, organization, content and effect of Spartan, Athenian, and Roman education; the educational theories of Socrates, Plato and Aristotle; the influence of Christian doctrines in educational thought and practice; the early Christian schools; Monasticism and Education; the development of Scholasticism; organization and influence of the early Universities; the educational system of Chivalry; the influence of Saracen learning.

The Renaissance: The leading tendencies of the Renaissance as a movement; the origin of these tendencies; conditions favoring the development of the movement; its history in Italy and in Teutonic countries; the work of Petrarch, Boccaccio and the Byzantine Greek teachers; the effects of the Renaissance in determining educational ideals and practice; the content and method of earlier and later humanistic education; educational leaders of the humanistic movement; the work and influence of Vittorino da Feltre, Erasmus, Ascham, and Sturm; the influence of the Renaissance on the organization of the schools; typical humanistic schools, the German gymnasium, the English Public School, and the Colonial grammar School.

Reformation and Counter-reformation: Relation of the Reformation to the Renaissance; the reformation movement in its relation to the development of elementary and secondary education in Europe;

Luther and elementary education in Germany; rise of state supported and controlled systems of education; the educational tendencies of the counter reformation; the educational works of the Jesuit order; subject matter, method and organization in Jesuit schools; training of teachers in the Jesuit order; the Port Royal schools; their aim, organization, curriculum, and methods; their influence; the Christian Brothers and elementary education in Roman Catholic countries.

Realistic Education: The development of Realism as an educational movement; its relation to Humanism; humanistic realism as represented by Rabelais and Milton; social realism as represented by Montaigne; sense-realism as represented by Ratich, Bacon, Mulcaster and Comenius; Bacon's "new method" for the discovery of truth; the influence of his theories on education; Comenius' conception of the purpose, content, method and organization of education, compared with modern ideals; brief account of his life and works; his place in education.

Disciplinary Conception of Education: Essential features of the modern disciplinary conception of education; its origin; strength and weakness of the theory; the educational theories of John Locke; his relation to disciplinary education and to later movements.

Education according to Nature: Relation of naturalistic tendencies in education to previous movements and to the condition of the times; history of the development of these tendencies; examination of Rousseau's educational theories as developed in the "Emile;" permanent results of his influence.

Modern Educational Theories: The Psychological ideal as represented in Pestalozzi; character and significance of the Pestalozzian movement; brief account of the life and works of Pestalozzi; formulation of his educational principles; his influence on education; the Herbartian movement; its relation to Pestalozzianism; Herbart's conception of the purpose, the means and the method of education; the doctrine of the correlation of studies; general characteristics of the Froebelian movement; brief account of Froebel's life and work; his educational theories as embodied in the Kindergarten; his influence on educational practice.

Scientific tendencies in education; theory of education as formulated by Herbert Spencer.

BOOK OF REFERENCE—

Munroe: *Brief Course in the History of Education.*

VIII. NATURE STUDY.

23. The special object of this course is to broaden the student's culture by giving her a deeper knowledge of, and sympathy with nature; and to enable her to present the subject of Nature Study in the Kindergarten according to Froebelian Methods. The course includes the following topics:—The pedagogical view of the subject including the character and scope of Nature Study; its adaptability

to the tendencies and needs of the child; the special purpose to be kept in view in the treatment of the subject; the Froebelian idea of Nature Study as shown in *The Mother Play*, and in the *Education of Man*; the general method of presentation; the study of special topics dealing with the materials of Nature Study and illustrating methods of presentation in the Kindergarten; a study of plant and animal life from the standpoint of organic development for the purpose of understanding Froebel's parallel between the laws of nature and laws of mental development; a series of lessons on the heavenly bodies, observing the principal constellations and tracing their movements throughout the seasons; the preparation of maps of the constellations, to be seen during each season.

Frequent excursions to be made to available localities where materials may be studied in their natural environment and relation; the making of collections of different kinds for extended observation and study; how to direct, as teachers, the practical side of nature work.

School gardening:—Its relation to the general Nature Study course; the pedagogical views of the subject; practice in planning and planting a garden; the selection of suitable plants for school gardens; growth and care of plants suitable for the school room.

IX. *Child Study.*

24. The special object of this course is to aid the teacher-in-training to study the development of the child definitely and systematically; to enable her to adapt intelligently her methods in each subject to the child mind at the different stages of its growth and by developing an intelligent sympathy, aid her in solving the problems of the management of the Kindergarten. The course includes the following topics:—The scope of Child Study; methods of investigation; importance of the interpretation as well as the discovery of the child's activities; formative influences in the development of character: nationality—the importance of the study of history in relation to child study, heredity, environment, and personality; mental types and variations from normal mental conditions; causes of, and methods of dealing with unbalanced temperaments; the child's physical characteristics; children's motives and ideals; the study of children along the lines suggested in the course of applied Psychology.

Child Study is to be closely connected with the work in Observation and Practice Teaching.

BOOKS OF REFERENCE—

- Kirkpatrick: *Fundamentals of Child Study.*
- Froebel: *Education of Man.*
- King: *Psychology of Child Development.*
- Tracy: *Psychology of Childhood.*
- Preyer: *Infant Mind.*

X. METHODS.

25. The special object of this course is to enable the student to teach intelligently, to deal correctly with the problems of order and discipline, and to understand the principles involved in the construction of programmes and time-tables. The course includes the following topics:—

Programmes: The purpose and value of; the principles involved in their construction; the point of departure in programme making, the child's essential experiences; the relation of the Mother Play to the programme; continuity in the evolution of the child's ideals; unity; freedom and spontaneity; typical programmes.

Note.—The students during the latter part of the year are to construct the programmes used in the practice kindergarten, present them first in the programme-class for discussion and revision, and afterwards enter them in a programme-book.

Time-tables: Their value; points to be observed in their construction.

Teaching: The meaning of Education through play; relation between play and work; characteristics of good teaching; evils of formalism; the teacher's personality; characteristics of a good lesson in matter and method; aim and value of questioning; characteristics of good forms of questions; value and limitations of typical forms of exercises; the meaning of good order; chief elements of governing power; analysis of successful methods; importance of right physical conditions; other helpful factors; ends and necessity of discipline, right conditions of, judicious and injudicious methods of.

Note.—Systematic observation and practice teaching to be continued daily throughout the year, the students being divided into suitable groups and the observation and practice teaching supervised by the staff and the results discussed at a suitable period.

Each student-in-training shall be required, towards the end of the course, to take charge of the practice kindergarten for a week. She shall be notified of the subject and the scope of the work to be done and shall present a plan of her method for each day of the week, for criticism.

XI. MUSIC.

26. The special object of the course in Music is to train the teacher in the use of Music as a means of self-expression and of aesthetic culture. The course includes the following topics:—

Tune: Practice in singing from the staff and tonic-solfa modulators; intervals of moderate difficulty, contained in the major diatonic scales; modulation from any given key to its relative minor, and its dominant and subdominant.

Time: Practice in singing rhythmical studies in simple or compound duple, triple, or quadruple times; the pulse as the unit of measurement in time, with its divisions into halves, quarters, or thirds in varied combination.

Ear Training: Development of the power to recognize by ear, and to transcribe the tonal and rhythmic elements of short musical phrases, when sung or played.

Voice Culture: Practice in correct tone production; vowel formation; enunciation of consonants; breath control; correct intonation; and the equalization of the various registers of the voice.

Songs: The study of songs suited to the requirements of pupils in all grades of public and separate Schools, with special attention to development of power in musical expression; the study of part songs of recognized merit, arranged for adult voices.

Notation: Elements of notation, both tonic-solfa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Vocal Physiology: Comparison of abdominal, intercostal, and clavicular breathing; the larynx; action of the vocal chords in the production of the various vocal registers; influence of the mouth and nasal cavities on vocal resonance and vowel quality.

Methods: Concurrently with the foregoing course, a practical knowledge of recognized systems of teaching the tonic-solfa and staff notations shall be acquired; also of the relative importance of the staff and tonic-solfa systems and the grading of musical studies.

XII. PHYSICAL TRAINING.

27. The course is the same as that for Assistants.



ONTARIO
DEPARTMENT OF EDUCATION

Regulations Governing Admission of Kindergarten Assistants, for Session of 1909-10.

To Public School Inspectors, Kindergarten Directors, and High School Principals.

Students who desire to enter upon the course of training for Kindergarten Assistants' certificates in September, 1909, may do so under the provisions of the regulations of 1907-8, which are as follows :—

No person shall be admitted to the course of training prescribed for assistants who is not seventeen years of age and who has not Junior Leaving standing, or who has not spent at least three years in a High School. Any person who has taken the equivalent of such a course at some other educational institution may, on the recommendation of the Inspector, be admitted to training with the consent of the Minister of Education.

☛ All applications for admission to the Kindergarten Course of training for the present year must be made not later than the second Tuesday in September, to the Public School Inspector, who shall, before admitting such candidates, forward the applications to the Deputy Minister of Education for the Minister's approval.

For the session beginning September, 1910, and thereafter the conditions of admission shall be those contained in the Syllabus of Studies and Regulations for Kindergartens issued in August, 1908, which are as follows :—

CONDITIONS OF ADMISSION FOR ASSISTANTS.

5. (1) Application for admission to the course of training for Assistants shall be made to the Director in charge of the Kindergarten, not later than the second Tuesday of September.

Each applicant shall send with the application :

- (a) A certificate from competent authority that she will be at least eighteen years of age on or before the close of the Session.
- (b) Her certificate of having passed the July Departmental Examination for Entrance into the Normal Schools.
- (c) A deposit of \$5, which will be returned to the teacher-in-training before the end of October, but which will be forfeited if the applicant fails to attend without giving satisfactory notice of withdrawal before the opening of the Training School.

- (2) Each applicant on presenting herself at a Training School shall submit to the Director thereof :—
- (a) A certificate from the Principal of an Approved School that she has completed satisfactorily the subjects of the Lower School prescribed for the Normal School Entrance Examination. Failing this certificate, she shall pass at a Normal School in September immediately before the beginning of the session, the examination prescribed in 5 (3), pp. 4-5 of the Normal School Syllabus of Studies.
 - (b) Proof that she is able to sing, and to play simple music at sight on the piano or organ.
 - (c) A certificate from a clergyman or other competent authority that she is of good moral character.
 - (d) A certificate from a physician that she is physically able for the work of a teacher, and especially that she is free from serious pulmonary affection and from seriously defective eyesight and hearing.

Toronto, June 8th, 1909.



AMENDMENTS TO THE REGULATIONS.

PUBLIC SCHOOL INSPECTORS' CERTIFICATES.

1.—(1) On and after the first day of September, 1908, a candidate who possesses the following academic and professional qualifications shall be entitled to a certificate as Inspector of Public Schools :

(a) A Permanent First Class Public School Certificate.

(b) A certificate of having passed the examination in the special course for Public School Inspectors, now provided by the Faculties of Education.

(c) A degree in Arts from an Ontario University, with at least Second Class honours (66%) at graduation, in a course in General Proficiency or in a special Honour Department, said courses to be specified in the calendar of such University and accepted by the Department of Education.

(d) At least seven years' successful experience in the provincial schools of Ontario, at least five of which shall have been in one or more of the Public Schools.

(2) (a) Until July, 1910, attendance at a University shall not be exacted. After that date at least two years' attendance shall be required.

(b) The Degree of Bachelor of Pedagogy shall be accepted in lieu of one of the seven years of experience prescribed in (1) (d) above, or the degree of Doctor of Pedagogy in lieu of two of said seven years. If the candidate holds both degrees, each degree shall be accepted in lieu of one of said years.

2. Regulation 89 of 1904 shall remain as an alternative for the preceding regulation until the first of July, 1910, after which date said Regulation 89 shall cease to be valid. Said Regulation 89 is as follows :

"The holder of a degree in Pedagogy who has had four years' experience as a teacher of which two years shall have been in a Public School and any person with five years' successful experience as a teacher of which at least three years shall have been in a Public School, who holds either Specialist's non-professional standing obtained on a University examination, or a Degree in Arts from any University in Ontario with first-class graduation honors in one or more of the recognized departments in such University, and who has passed the examination of the Ontario Normal College (now Faculty of Education) for a Specialist's certificate, shall be entitled to a certificate as an Inspector of Public Schools."

LATIN AT THE NORMAL SCHOOL ENTRANCE EXAMINATIONS.

Section 8 (2) (a) of Circular 19, January, 1908, is hereby amended by adding as follows:

"Except the Latin papers for the Normal School Entrance Examination, which shall each be valued at seventy-five marks."

THE HISTORY FOR ENTRANCE INTO THE FACULTIES OF EDUCATION.

For the High School Upper School Course in History (British, Mediaeval, and Modern) prescribed on page 71 of the Regulations of 1904, the following has been substituted:

General outline of Mediaeval and Modern History, with special reference to British History. The Geography relating to the History prescribed.

On this course the Examination of 1909 for Entrance into the Faculties of Education will be based, and, as heretofore, two papers will be set, one in the Mediaeval History of Part I, and one in the Modern History of Part II. A syllabus of the new course is contained in Circular 11 which may be obtained on application to the Deputy Minister of Education.

ENTRANCE INTO THE FACULTIES OF EDUCATION AND THE NORMAL AND MODEL SCHOOLS.

In pursuance of its policy of improving the qualifications of the teachers, the Department of Education will hereafter exact a higher standard of answering at the examinations for entrance into the Faculties of Education and into the Normal and Model Schools. The age for admission into the Faculties of Education and the Normal Schools will also be raised one year in each case. Beginning with the session of 1909-10, each candidate for a teacher's certificate shall be at least eighteen *before* entering a Normal School and at least nineteen *before* entering either of the Faculties of Education.

EXTENSION OF TEACHERS' CERTIFICATES.

The abolition of the County Model Schools will probably result in a scarcity of teachers until an adequate supply is provided by the Normal Schools next July. The Minister of Education will, accordingly, be prepared to extend, until June 30th, 1909, any certificate that expires before that date, provided, however, such extension is recommended by the Inspector concerned.

PERMANENT THIRD CLASS AND DISTRICT CERTIFICATES.

The Permanent Third Class and District Certificates for teachers of ten years' successful experience, provided for in section 85 (1) of the Regulations of 1904, will not be issued after December 31st, 1908, to any teachers who cannot qualify on or before that date.

EDUCATION DEPARTMENT,
August, 1908.

Cir. 26 A.
2,000, Feb'y, 1909.



Age Requirements for Professional Training.

CIRCULAR TO HIGH AND CONTINUATION SCHOOL
PRINCIPALS AND TO INSPECTORS.

Circular No. 26 of August, 1908, contains the following :

"In pursuance of its policy of improving the qualifications of the teachers, the Department of Education will hereafter exact a higher standard of answering at the examinations for entrance into the Faculties of Education and into the Normal and Model Schools. The age for admission into the Faculties of Education and the Normal Schools will also be raised one year in each case. Beginning with the session 1909-1910, each candidate for a teacher's certificate shall be at least eighteen before entering a Normal School and at least nineteen before entering either of the Faculties of Education."

In accordance with this announcement, an applicant for admission to a Faculty of Education must be nineteen years of age on or before September first; for admission to a Normal School, eighteen years of age on or before September first; and for admission to a Model School, eighteen years of age on or before December thirty-first.

It must be understood that no deviation from the foregoing rule will be allowed in any case.

School Principals and Inspectors are requested to give due publicity to the provisions of this circular.

R. A. PYNE,

March, 1909.

Minister of Education.



TRAVELLING LIBRARIES.

REGULATIONS.

1. On satisfactory guarantee that all regulations will be complied with, Travelling Libraries may be lent to Associations, or Reading Clubs in the new and sparsely settled portions of the Province.

2. One or more citizens acting as Trustee or Trustees must be personally responsible for loss or injury beyond reasonable wear; and the Trustee or Association shall appoint a suitable person to be Librarian.

3. Books (only one case at a time) will be loaned without charge to the Association, excepting the express charges to and from the Department, and the payment of damages for loss or injury to books beyond reasonable wear.

4. The Travelling Library shall not be kept longer than six months after its reception, except by special permission from the Minister of Education.

5. The Librarian shall care for the books while under his control, circulate them in accordance with the Regulations of the Department and the Rules of the Association, and make required reports respecting their use.

6. The books will be carefully selected for each Travelling Library, but the Department will not undertake to furnish other books than those forming each library collection.

7. So far as possible the works of standard authors will be selected, including books of natural and social science, biography, history and travel, in addition to a moderate proportion of works of fiction.

8. The Library shall be kept at a convenient place, and be open for obtaining and returning books at such times as the Association or Trustee in charge shall direct.

9. The Association may require each borrower to pay promptly any fines due for over-detention of books, or for injuries of any kind beyond reasonable wear to any book charged to him.

10. All corrections of the text, or marks of any kind on books belonging to the Travelling Library are unconditionally forbidden, and all losses or injuries beyond reasonable wear must be promptly adjusted to the satisfaction of the trustee by the person to whom the book is charged.



MEMORANDUM RESPECTING THE FORMATION OF SEPARATE SCHOOLS.

The following are the steps to be taken in forming a Roman Catholic Separate School :

1. Any number of persons, not less than five, being heads of families, and householders, or freeholders resident within any school section of any township, incorporated village or town, or within any ward of any city or town, and being Roman Catholics, may convene a public meeting for 10 o'clock in the morning of persons desiring to establish a Separate School for Roman Catholics in such school section or ward, for the election of trustees for the management of the same.
2. A majority of the persons present, being householders or freeholders and Roman Catholics, and not candidates for election as trustees, may at such meeting, elect three persons resident within such section or an adjoining section, to act as trustees for the management of such Separate School.
3. A *written* notice, signed by *at least five heads of families*, should be posted in three of the most public places in such section, at least six days before the date of meeting, stating that the meeting is to be held (giving the place and hour) for the purpose of organizing a Roman Catholic Separate School in such a Public School Section (giving name and number). *A copy of this notice is to be sent to the Education Department* certifying that the persons who signed it are Roman Catholic heads of families, householders or freeholders resident within such section.
4. When the meeting has been called to order, a chairman and a secretary should be appointed and the purpose of the meeting stated. A resolution to form a Separate School should then be proposed and carried. The trustees are to be elected by open vote. *A copy of the minutes of this meeting is to be sent to the Education Department*, giving the number of Roman Catholic householders or freeholders resident within such section or adjoining section who were present.

5. If the three trustees are elected from persons at the meeting, at least seven should be present ; if only five or six persons are present then only two trustees can be chosen from them, and the third is to be named from supporters not present.

6. Any one being a British subject, not less than twenty-one years of age, may be elected trustee, whether he be a freeholder or a householder or not.

7. One of the newly elected trustees must give written notice that such meeting has been held for the purpose of forming a Roman Catholic Separate School, and this notice shall state (a) the name, (b) the occupation, (c) the place of residence of each person elected as trustee.

In rural sections this notice is to be given to the Reeve ; in an incorporated village, town or city to the Chairman of the Public School Board. It is the duty of the Reeve or Chairman to endorse thereon the date of the receipt of such notice and his name, and to return the same to the trustee.

From the day of endorsement of such notice, (or, in the event of the neglect or refusal of the Reeve or Chairman to certify, then from the day of the delivery of such notice), the trustees therein named shall be a body corporate and the school shall be deemed to have been formed at such date.

8. *The notice, signed by the Reeve or Chairman, together with the minutes of the meeting (mentioned in Sec. 4) and a copy of the written notice calling the meeting (mentioned in Sec. 3), should be sent to the Education Department, with the name and post office of the Secretary of the section.*

9. The Separate School takes the same name and number as the Public School Section in which it is established.

10. A copy of the Separate Schools Act can be obtained from the Education Department.

To form a Union Separate School the following steps are to be taken :

1. In each of the sections desiring to unite a meeting to organize a Separate School must be held, as pointed out in Sec. 1 to 5 of this memorandum, and three trustees elected in each section.

2. The trustees of each section, by written notice posted in three public places at least six days previous, should then call a meeting, at some central place, of the supporters of their section to form a Union Separate School Section. The purpose of the meeting should be stated in the written notice.

3. If the union is formed at such meeting by the agreement of a majority of the supporters of each section, *written notice must be sent within fifteen days (1) to the Minister of Education, and (2) to the clerk of each municipality concerned*, stating that a union of such sections has been formed.

4. Three trustees should be elected at this meeting for the united sections, according to the regulations on page 1.

NOTICES.

The notice to be given to the Clerk of the township by persons desirous of becoming Separate School supporters may be in the following form, and must be given on or before the first day of March:

School Section No. , Township of.....

SIR,

I hereby give you notice, in accordance with the provisions of the Separate Schools Act, that I am a Roman Catholic and a supporter of the Roman Catholic Separate School No. , Township of , and therefore claim exemption from all Public School rates, as provided by law.

Dated this day of 190 .

A. B.

To the Clerk of the Township of

The notice to be given to the reeve for endorsement by him may be in the following form:

School Section No.....Township of.....

SIR,

Take notice that a meeting of Roman Catholic freeholders and householders resident in the Public School Section No. , in this Township, was held on the day of , 190 , to establish a Roman Catholic Separate School within such Public School Section. The said meeting was called by written notice signed by [here give the names of at least five persons who signed the notice] being Roman Catholic heads of families and freeholders or householders resident within such Public School Section. There were present.....[state number] Roman Catholic resident freeholders or householders of said section, and the following persons were elected Trustees for the management of the said Separate School according to law.

[Here give the name, occupation and place of residence of each Trustee.]

Dated this day of 190 .

A. B.,

Trustees of Separate School.

To the Reeve of the Township of.....

The notice to be given on withdrawing from a Roman Catholic Separate School may be in the following form:

School Section No. , Township of.....

.....day of.....190....

SIR,

I hereby give notice, as required by law, of the withdrawal of my support from the Roman Catholic Separate School No. , Township of.....

I am, sir, your obedient servant,

A. B.

To the Clerk of the Township of.....



BI-LINGUAL SCHOOLS.

Circular to Public and Separate School Inspectors.

GENTLEMEN,—You will kindly bring to the attention of the teachers in your Inspectorates, the special needs of the French Bi-Lingual Schools.

For several years efforts have been made by the Education Department to improve the condition of the schools in parts of the Province where French is the language generally spoken by the members of the community. It is well known that there is a strong desire manifested by parents whose native language is French, to give their children a fair knowledge of the English language, which is yearly becoming more important from a commercial and national point of view. The establishment, some years ago of an English-French Training School at Plantagenet, did much towards improving the condition of the schools in the eastern part of Ontario. Advancement, has not, however, been as rapid as would be desirable, owing to the difficulty of securing teachers who have the necessary knowledge of both the English and French languages. It is evident the pupils of the schools will receive better training if higher academic and professional attainments are required of the teachers.

QUALIFICATIONS OF TEACHERS.

Thus far it has been found necessary to combine the academic and professional training of the teachers, but the time has now come when it is desirable to separate these two parts of a teacher's qualifications, as has long been the case in the training of English speaking teachers. With this object in view, persons seeking to qualify for teachers of Bi-Lingual Schools, on and after September, 1900, will confine their attention during the academic year, ending in June, to the non-professional requirements, which may be taken at Plantagenet, or elsewhere. The examination will be on the same papers (the standard to be hereafter determined) as those prescribed for the Public School Leaving (Part I., Junior Leaving) examination, together with question papers in French Grammar and French Composition. The candidates who pass this examination will be required to undertake subsequently, from September to December, a course of professional training, somewhat on the same lines as that now exacted of candidates for Provincial Third Class Certificates. This course is to be taken in Ottawa, and arrangements made by which the candidates may have some of the advantages of the Normal School. It is also intended to have certificates obtained in this way,

valid for any school in the Province where the Inspector may certify that a French Bi-Lingual teacher is required. The duration of such certificates will be three years, renewals under certain conditions to be granted on the recommendation of the Inspector. It is to be understood that these provisions will not affect the rights of teachers who have already obtained certificates under the present regulations.

METHODS OF TEACHING.

Teachers of French Bi-Lingual Schools should make it a special duty to render the pupils acquainted with the English language, and in ungraded schools should, therefore, devote about two hours daily to the teaching of English—reading, spelling, composition, oral English, &c. In graded schools each teacher should give, at least, one hour daily—the time to be increased at the request of the Inspector. The regulation requiring that, so far as possible, all communication between pupils and teacher shall be in English, must be carefully observed. There should be little teaching of English from books until the pupils have gained a fair knowledge of oral English. To this end the teachers should follow the instructions in the circular prepared by the Education Department on the teaching of English.

Your obedient Servant,

R. HARCOURT,

Minister of Education.

EDUCATION DEPARTMENT,

TORONTO, August 1st, 1900.



ONTARIO
DEPARTMENT OF EDUCATION

NORTH BAY NORMAL SCHOOL.

The North Bay Normal School will open next September for the preparation of Second and Third Class teachers.

For information as to the dates of admission candidates should apply without delay to the Deputy Minister.

The Department of Education will pay \$1.50 a week of the cost of Board and Lodging of all residents of the districts whose ordinary place of abode is outside of a radius of 20 miles from North Bay, and the railway fare of all such residents outside of a radius of 100 miles.

PROVISION AS TO THE RENEWAL OF CERTIFICATES FOR SCHOOLS IN THE DISTRICTS.

I. On the recommendation of the Inspector under whom the candidates last taught, and on the application of a Board of School Trustees on an official form to be obtained from the Inspector, the Minister of Education will renew expired or renewed certificates as follows :—

(1) Until July, 1910, Third Class and District certificates that expire in 1909 ; but in order to secure such renewal, the Inspector may require the holder to attend one of the District Summer Schools ;

(2) Until July, 1911, Third Class and District certificates that expire in 1909, provided the holder thereof attend one of the District Summer Schools and pass the final examination thereof ;

(3) For five years from date of issue, limited Third Class certificates, in the case of holders of Third Class and District certificates (including renewals) who pass in 1909 or 1910—

(a) The academic examination for admission to the Model Schools, and

(b) The Model School final examination.

(4) Until July, 1910, the Temporary certificates of those who hold Non-professional District certificates or have passed the Entrance examination into the Model Schools, who have already attended a Summer School and passed the final examination thereof, and who have taught successfully for at least six months;

(5) Until July, 1911, the Temporary certificates of those who hold Junior Teachers' certificates or have passed the Entrance examination into the Normal Schools, who have already attended a Summer School and passed the final examination thereof, and who have taught successfully for at least six months.

II. On the recommendation of the Inspector, and on the application of a Board of School Trustees, the Minister of Education will renew until at furthest July, 1910, other Temporary certificates than those provided for in (4) and (5) above, if the holders thereof have taught successfully for at least six months, attend one of the District Summer Schools, and pass the final examination thereof. The holder of such a renewed Temporary certificate shall have the first claim for vacant positions if legally qualified teachers [including those provided for in sections (1), (2), (3), (4) and (5) of I. above] are not available.

III. For the above purposes, Summer Schools beginning on July 5th and ending on July 30th, will be held at the following centres in the districts: Sault Ste. Marie, Gore Bay, Port Arthur, North Bay and Bracebridge.

Application for admission to one of the District Summer Schools shall be made without delay to the Inspector of the District in which the teacher last taught.



ONTARIO
DEPARTMENT OF EDUCATION

Sturgeon Falls Training School for the Teachers of District English-French Schools.

L. E. O. PAYMENT, M.A., Principal.

1. (1) The first session of the Training School for teachers of English-French schools in the Districts will open on the 1st of September, 1909, and close on June 17, 1910.

(2) There shall be two vacations, as follows :

At Christmas beginning on December 18th, 1909, and ending on January 4th, 1910 ; and

At Easter beginning on the Thursday before Good Friday and ending on the Monday following Easter Monday.

2. The school will be under the principalship of L. E. O. Payment, M.A., and will be conducted in connection with the Roman Catholic Separate School of Sturgeon Falls, which will be used as a practice school for the teachers in training.

CONDITIONS OF ADMISSION.

3. Only those will be admitted who signify their intention of becoming teachers of English-French schools.

4. Application for admission should be made to the Principal at Sturgeon Falls, on or before August 16th.

5. Each candidate for admission shall submit the following to the Principal :

(1) A certificate of good moral character, from a clergyman or other competent authority.

(2) A certificate from a physician of physical ability for the work of a teacher, and especially of freedom from pulmonary affections and from seriously defective eyesight and hearing.

(3) For admission to the course of the First Year, a certificate that the candidate will be fifteen years of age on or before September 1st, and, for admission to the course of the Second Year, a certificate that the candidate will be sixteen years of age on or before September 1st.

(4) For admission to the course of the First Year, a certificate of having passed the Entrance Examination into the High Schools or a higher examination.

(5) For admission to the course of the Second Year, a certificate of having passed the Entrance Examination into the Model Schools or a higher examination.

6. Each candidate shall pass at the school a written and oral test examination in French before admission to either year of the course unless the candidate has already passed successfully in the French, Grammar, and Composition of the examination for entrance into the Model Schools.

COURSES OF STUDY.

7. The Course of Study will be a two years' one : the first year, Academic ; and the second year, Academic and Professional.

CERTIFICATES.

8. Candidates who pass the final examination of the second year will be granted Third Class certificates valid in English-French Schools.

BOARD AND TRAVELLING EXPENSES OF TEACHERS-IN-TRAINING.

9. The Department of Education will pay \$1.50 a week of the cost of board and lodging of all residents of the Districts who are in attendance and whose ordinary place of abode is outside of a radius of 20 miles of Sturgeon Falls. It will also pay the railway fare of all such residents outside of a radius of 100 miles.

July, 1909.



ACCOMMODATIONS AND EQUIPMENT OF RURAL PUBLIC AND SEPARATE SCHOOLS.

INSTRUCTIONS TO INSPECTORS AND SCHOOL BOARDS.

Approved by the Education Department, July, 1906.

By the Act of 1906, respecting the Department of Education, the basis of distribution of the Legislative grants to Rural Public and Separate Schools has been changed. (Sec. 23, sub-secs. 5 and 6.) After the present year, the general and special legislative grants and the county equivalent to the latter will be divided on the basis of the salaries paid the teachers, the character of the accommodations, and the value of the equipment, after providing a minimum grant for each such school which is equipped as required by the Regulations of the Education Department. The scheme for this distribution will be settled by the close of the present year, and will be similar in character to that which has proved so effective in the case of the High Schools. (See Regulation 149.) It will, accordingly, provide for the payment of a percentage of the salary paid the teacher over the minimum prescribed by the recent Public Schools Amendment Act, a percentage of the value of the equipment over the minimum prescribed herein, and graded sums under each heading of the accommodations as detailed herein.

As a guide to Inspectors and Rural School Boards, the instructions in this circular are now issued. In the case of the details prescribed below under "Accommodations," the Inspector is directed to use his judgment in securing them, having due regard to the interests of education, the capabilities of the present premises, and the financial competency of the boards. These details are, however, obligatory in the case of new buildings, and they are the basis on which, using his discretion, he shall found his grading. The Inspector will grade the accommodations in his report to each School Board during the first half of 1907, and will, in that year, distribute, on the new basis, the Legislative and County grants concerned. In order to do this satisfactorily, it would be well for him to make for himself a tentative grading of the accommodations of each of his schools, during the coming half year, on the supposition that there will be three grades under each heading.

As already pointed out in Circular 15, of May, 1906, it will be eminently prudent for every School Board to spend its extra income during the coming half year on the improvement of the school accommodations and the equipment. Before making such improvement, each

Board should consult the Inspector, whom, in the same circular, the Minister directs to modify his ordinary routine for the coming half-year so as to have time to discuss the changes with at least the Chairman of each School Board and with the County Council and the Township Councils in his inspectorate. For this purpose he should also convene meetings of the ratepayers and the school trustees. It is not probable that a large number of the schools will be able to secure in the first year the highest grading under many of the heads, but an effort should be made by each School Board to effect at an early date as many improvements as its finances will permit. Cases will, no doubt, arise in which School Boards will be unable to complete their improvements during the coming half-year. In such cases, in grading the accommodations and valuing the equipment, it will be at the discretion of the Inspector to recognize improvements made during the first half of 1907, even after his official visit, if duly reported and certified to him by the Principal and the Board of Trustees, on a date to be fixed by the Inspector, before the ensuing distribution of the grant. In this connection, it is important to note that the grant to each township is separate from those to the other townships in the County, and, accordingly, except in the case of certain union sections, the schools of each township will compete for the grant only amongst themselves. It will therefore be prudent for the Inspector to begin with a high standard of grading and to maintain the same standard throughout his inspectorate. To both of these provisions, it is manifest, he cannot attach too great importance.

The details under the head of "Minimum Equipment," given below, are now obligatory and should be provided as soon as practicable. Until it provides this minimum, no school shall share in the Legislative and County grants after the present year. When, however, the Inspector is satisfied that a Board is too poor to comply with the requirements, he may, at his discretion, extend the time till the summer of 1908.

ACCOMMODATIONS.

(1) *School Grounds.*—As a minimum, the school site shall not be less than one acre in area, accessible by good highways and not exposed to disturbing noises. The school grounds shall be properly levelled and drained and at least 100 yards from stagnant water, and provided with adequate walks of plank, brick, flags, gravel, or cement. For the highest grading the grounds shall also be ample for school games and for an ornamental plot in front. They should also be set out with trees and ornamental shrubs, and enclosed by a neat and substantial fence or hedge, with suitable gates (iron preferred). Unless so enclosed, the school grounds shall not be rated of the highest grade. In order to ensure good drainage and water supply, the soil should, if practicable, be sandy or gravelly, not clayey or peaty. No trees shall be placed so close to the school building as to check the free passage of air and light. About one-third of the play-grounds should be allotted to the girls, the rest to the boys.

(2) *Closets.*—The closets for the sexes shall be under separate roofs and placed at least 50 feet from the well and the school building, to prevent pollution of the well or the air of the class-rooms. Each closet shall contain a sufficient number of compartments properly lighted and ventilated, and, for the highest grading, each compartment shall be provided with a door. The boys' closet shall be built of glazed brick or similar material, or of wood, painted a dark color and sanded, with a floor of tiles or glazed bricks. Urinals of slate or else lined with zinc or galvanized iron, shall be provided for the boys. For the highest grading in schools with more than one teacher, there shall be locked compartments for the teachers. Suitable covered walks (cement, flag, or brick preferred) shall be laid from the doors of the school building to the closets, so that the closets shall be accessible with comfort at all seasons of the year, and provision shall be made for keeping the walks free from snow in the winter. A close board fence or a wall, about six feet high, shall be provided between the boys' and the girls' side, from the closet to the school building; and the closets shall be placed at least ten feet distant on each side. The entrance to the closets shall be properly screened (spruce trees in front of each closet) and the doors shall be locked after school hours by the teacher, and opened before school hours by the caretaker. The closets and urinals shall be cleansed and disinfected monthly if possible. Dry earth closets or closets with draw-boxes are to be preferred.

(3) *Water Supply.*—The water supply shall be adequate. There should be a well, (artesian if at all practicable) with a neat pump and platform, of good drinking water, on the school premises, properly protected against pollution from surface drainage or any other source. If a dug well, it shall be thoroughly pumped and cleaned out at the close of each vacation and at such other times as may be deemed advisable by the teacher or by the inspector. Graniteware pails, or, for the highest grading, earthenware or graniteware water-tanks with covers, and drinking cups of glass or good enamelled ware shall be provided and kept scrupulously clean. Where there is no well, other provision, satisfactory to the inspector, shall be made for an adequate supply of good water.

(4) *School Building.*—The grading of the school building shall depend upon the character of its site and its construction. The building should have a southern exposure and shall be at least thirty feet distant from the public highway. Its architectural appearance shall be considered, and, for the highest grading, more than merely a plain building shall be required. The entrance shall have a vestibule or covered porch. In schools with more than one teacher, for the highest grading, there shall be separate entrances, and separate means of egress to the closets at the rear. Where there are two stories, the second floor shall be sound-proofed with mortar, felt, or other suitable material. A school bell (and, in the larger schools, a fire alarm gong) shall be provided, and a flag and flag-pole. Every school should have a basement, at least seven feet high in the clear, ceiled with wood or plaster, and having a pine, hardwood, or (preferably) cement floor. Cordwood shall be well dried before being stored in the basement. Where there is no basement,

an adequate woodshed shall be provided, at least 20 feet from the building, of wood, brick, or other suitable material, with proper doors and locks. The wood-work of the shed shall be painted a suitable color.

(5) *Class Rooms*.—The class rooms shall be oblong (length 7 feet more than breadth), and large enough to seat comfortably all the pupils. A superficial floor area of at least 12 (16 preferred) square feet, and a cubic air space of not less than 250 feet shall be allowed for each pupil, the provision being based on the highest attendance. Hardwood should be preferred for all the woodwork, especially for the floors. Except for the floors any material of such quality and grain as would suit for an oil or varnish finish will suit. Suitable color schemes (the ceilings being always white, or slightly tinted) should be adopted for the halls and class rooms, which should be painted rather than calcimined. Wood finish, instead of plaster, may also receive the highest grading. If calcimined, the walls must be kept free from dust, and recalcimined when needed. If painted they must be washed down and repainted also when needed.*

Adjustable transoms shall be placed over the class room doors which shall swing outwards either way. At least one waste paper basket shall be provided and the floors shall be kept in good order. A closet or a cabinet shall be provided for utensils used in school work; also a map case and shelving for lunch baskets or lunch pails. As soon as practicable, the class rooms should be decorated with good pictures, casts, vases, and other ornaments. Suitable scrapers and mats shall be placed at the outside doors. In localities where flies are troublesome wire screens should be provided for the doors and windows.

(6) *Teachers' Private Rooms*.—There should be a room for the private use of the teacher or the staff, of suitable size and comfortably furnished.

(7) *Halls*.—The entrances, vestibules and halls shall be roomy and well lighted, and shall be so placed as to admit of separate entrances for the sexes to the cap and class rooms. The entrance and vestibule doors shall swing outwards or either way. For the highest grading, in buildings of two stories, there shall be separate stairways for the sexes, easy of access and well guarded. Here, also, suitable color schemes and decorations should be provided.

(8) *Cap Rooms*.—For the highest grading, and in all schools to be erected hereafter, separate cap-rooms shall be provided for the sexes. The cap-rooms shall be conveniently situated with respect to the class rooms and shall be provided with wash basins and towels and with all the necessary appliances for storing umbrellas and for hanging caps or cloaks. Where there are no cap-rooms, there shall be an adequate supply in the class room, of hooks, for caps, cloaks, etc. Curtains should be strung on wires to conceal the clothing.

(9) *Desks*.—Every school house shall be seated with either double or single desks with movable seats and noiseless joints, such single desks being necessary for the highest grading. The desks shall be fastened to the floor in rows facing the teacher's platform, with suitable aisles between the rows and with passages at least three feet wide

*Inspectors and School Boards should consult "School Sanitation and Decoration," by Burrage and Bailey; \$1.50; D. C. Heath & Co., New York City.

between the outside rows and the walls of the school room. The desks and seats shall be graded in size to suit the age of the pupils, those of the same size being placed in the same row from front to rear. The pupil, when seated, must be able to place his feet fully and easily on the floor. The number of the desks shall be adequate for the number on the roll.

There shall be a suitable desk and chair in each class room for the use of the teacher, and at least two chairs for visitors. The teacher's desk shall be provided with two drawers or compartments, with lock and key. There shall be a table of suitable size, around which the younger pupils may assemble to do part of their work. Where Chemistry or Physics is taken up in a higher class, a suitable table should be provided for the experiments; and, in such schools, this provision shall be necessary for the highest grading. A sloping stand for the large dictionary shall also be provided.

(10) *Blackboards*.—There shall be one blackboard of good quality, at least four feet wide, extending across the room in the rear of the teacher's desk, with its lower edge not more than two and one-half feet above the floor; and there shall be additional blackboard provision on each of the other sides of the room. Slate is greatly to be preferred and is cheaper in the end; hyloplate will do. There shall also be an adequate supply of blackboard brushes and crayons, the former to hang below the trough. Where there is a platform it shall be from four to five inches high and should extend across the room where practicable. At the lower edge of each blackboard there shall be a trough, covered with wire netting, five inches wide, for holding crayons and brushes. The troughs and brushes shall be cleaned every day.*

(11) *Lighting*.—For the highest grading, the class rooms shall be lighted from the left of the pupils, the lower edges of the windows being on a level with the tops of their heads. Where there are windows in front of the pupils, it is indispensable that they shall be closed up. To admit of an adequate diffusion of light throughout the whole class room, the windows shall be numerous (area, one-fifth or one-sixth of the floor space, where the lighting is good; otherwise a greater area), and of clear (not ground or painted) glass; narrow, with two or four panes each; and running as close to the ceiling and as far to the rear of the

*The following directions for making a blackboard may be found useful (Such blackboards, however, are never satisfactory):

(a) Where a brick wall is built solid, and also in case of frame buildings, the part to be used for a blackboard should be lined with boards, and the laths for holding the plaster nailed firmly on the boards.

(b) The plaster for the blackboard should be composed largely of plaster of Paris.

(c) Before and after having received the first coat of color it should be thoroughly polished with fine sand paper.

(d) The coloring matter should be laid on with a wide, flat varnish brush.

(e) The liquid coloring should be made as follows:—Dissolve gum shellac in alcohol, four ounces to the quart; the alcohol should be ninety-five per cent. strong; the dissolving process will require at least twelve hours. Fine emery flour with enough chrome green or lampblack to give color, should then be added until the mixture has the consistency of thin paint. It may then be applied in long, even strokes, up and down, the liquid being kept constantly stirred.

class rooms as practicable. They shall begin about five or six feet from the front of the class room. The windows shall also be provided with blinds of suitable color and size. The blinds on the left of the pupils should be semi-transparent; other blinds should be opaque. On dull days, windows in the rear and on the right may be serviceable; but, if the light from the left is adequate, they should not be used at other times.

(12) *Heating*.—The temperature of the class rooms, halls, cap-rooms, and teachers' private rooms shall be, as nearly as practicable, 68 degrees. A thermometer shall be provided for each class room. For first-class grading, steam radiators or hot air furnaces are necessary. Where stoves are used, they shall be so placed as to prevent discomfort to any pupil; shall be protected by a jacket of tin, zinc, or galvanized iron; and shall be provided with a strong iron poker, shovel, and pail for ashes. The stove-pipes and the chimneys shall be kept free from soot and dust. Both stoves and stove-pipes shall be polished at least three times a year.

(13) *Ventilation*.—Provision shall be made for an adequate supply of pure air at all times. The foul air shall be removed and the pure air supplied so that there shall be a complete change at least three times an hour. The windows of every school building shall be adjusted by weights and pulleys, and, when the outside temperature permits it, they will provide the necessary change of air. In cold weather the windows may be raised at recess from below and lowered from above, according to the outside temperature; but the necessary constant ventilation cannot be secured by this method. The pure air shall be admitted directly from the outside through sufficient ducts running under the floor and opening below the stove. The pure air supply shall be under control by slides to open or close the ducts. Where steam heating or a hot air furnace is used, the pure air shall be admitted directly from the outside, at a height of about four feet from the ground, to the base of the furnace. In the air space of each furnace or within the jacket of each stove there shall be a pan filled daily with water, so as to furnish the warmed air with the necessary moisture. (*Air shall not be taken from the school room or from the basement to supply the furnace, except in the morning before school, after which, this source of supply must be shut off.*)

In all cases the foul air shall be taken away from near the floor and out through ventilating ducts in the chimney, which ducts should be somewhat larger in area than the incurrent pure air ducts. In buildings where ventilating ducts have not been provided in the chimneys, two tin, zinc, or galvanized iron pipes (about six inches by ten inches) should extend on opposite sides from near the floor, connecting below with the class room and running up through the ceiling beside the chimney, and so placed as to be well heated. Openings, with regulating slides, should also be provided in these ducts near the ceiling for use only when the room is overheated. When needed, a cowl should be placed so as to cover properly the chimney and the excurrent foul air ducts.

Where storm sashes are used on the outside, they shall contain sliding panels in the wood or the panes or shall be hinged at the top,

to allow of the ingress of pure air; or they may be placed on the inside and also hinged at the top. It answers equally well to have double panes of glass about one-half inch apart in the same sash.

Reg. 9 (*Amended*).—The trustees shall appoint one of themselves or some other suitable person to keep the school house and premises and all fences, water-closets, outhouses, walks, windows, desks, maps, blackboards, and stoves in proper condition. It shall be the duty of the teacher to inspect the premises daily and report to such officer without delay any needed repairs. The trustees shall also provide for washing the floors at least quarterly (monthly to be greatly preferred), and for whitewashing, every year during the summer holidays, the walls and ceilings if finished in plaster, or for washing them if finished in wood or steel sheeting and painted; and shall employ a caretaker whose duty it shall be to sweep the floors daily (the windows being then open), to dust daily all the furniture, window ledges, etc., with damp dusters (preferably in the morning at least an hour before school); to make fires, at least one hour before the opening of school, from the first of November until the first day of May in each year, and at such other times in October and May as the teacher may direct. The duties of the caretaker shall be arranged for and performed satisfactorily to the Inspector.

Reg. 10.—No public school house or school grounds, unless otherwise provided for in the conveyance to the trustees, shall be used for any other than school purposes without the consent of the trustees, and no advertisements shall be posted in any school room or distributed to the pupils unless approved in the same way.

Reg. 10 (*a*).—Hereafter, subject to appeal to the Minister of Education, all new school sites and all additions to old ones and all plans of new schools or of additions to old ones, and all other proposed school accommodations, shall be approved by the Inspector of Public or Separate Schools (as the case may be), who shall be guided by the instructions contained herein. (*New Regulation.*)

MINIMUM EQUIPMENT.

Reg. 8 (*Amended*).—A globe, not less than nine inches in diameter and properly mounted; a map of the hemispheres; a map of each continent; a map of Canada; a map of Ontario; a map of the county (if a suitable one is published); a map of the British Empire; a map of the British Isles; an atlas or a gazetteer; a standard dictionary for each class room (with English pronunciation); a numeral frame (or an adequate supply of loose cubes); a good clock for each class room, kept in good condition; a set of mensuration surface forms and geometrical solids; a blackboard set for each class room (one protractor, 15½ inches, triangle, 24 inches, a pair of compasses, two pointers, a graduated straight edge); a pair of scales, with weights, to weigh from half-ounce to ten pounds; a set for measure of capacity (pint, quart, gallon); a set for linear measure (inch, foot, yard, tape line); a set for square and cubic measures; a school library of the minimum value of \$20.00 for each teacher employed, increased annually after December, 1907, by at least \$10.00 until the value for each teacher employed reaches \$100.00. A suitable book case shall also be provided.

For a list of books, see Catalogue of Books for Public School Libraries, issued by the Education Department in 1902. In making the selection, the inspector's approval should invariably be secured. He is directed to strike off the list any unsuitable purchases. Regs. 117, 118, 121, and 122 are hereby cancelled.

ADDITIONAL EQUIPMENT.

Besides the above equipment, which is obligatory in every rural public and separate school, the Education Department has issued three other circulars: No. 6a. (a list of scientific apparatus suitable for Fifth Form and elementary Continuation Classes); No. 6. (a list of scientific apparatus suitable for advanced Continuation Classes), and No. 6b. (a list of equipment for Domestic Science, Construction Work, and School Gardens, in rural schools,). From these lists Boards should select, with the approval of the Inspector, such apparatus as may be needed for the work done in the several departments. These lists have been distributed along with this circular, but additional ones may be obtained upon application to the Inspector.

A book in which to record from time to time the value of the equipment will be provided by the Education Department for each rural School before next August.



Accommodations and Equipment
OF
Rural Public and Separate Schools
IN THE
Organized Counties of Ontario.

Instructions to Inspectors and School Boards.

Circular 33 of 1906, Revised September, 1907.



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Accommodations and Equipment of Rural Public and Separate Schools in the Organized Counties.

INSTRUCTIONS TO INSPECTORS AND SCHOOL BOARDS.

Revised September, 1907.

By section 4, subsection 3, of "An Act to amend the Department of Education Act" of 1907, part of the General Grant voted by the Legislature for the Rural Public and Separate Schools in the Organized Counties and the Districts is divided amongst said schools on "the value of the equipment and the character of the accommodations." In Instructions, Nos. 12 and 13, the regulations governing the distribution of this part of the grant are given in detail. This circular, which is a revision of, and which supersedes, Circular 33 of 1906, is now issued for the information of Boards of School Trustees which may contemplate the purchase of additional equipment or the erection of new buildings or the improvement of old ones, as well as for the guidance of Public and Separate School Inspectors in valuing the equipment and grading the accommodations of the Rural Schools in the Organized Counties.

As is shown by the official form of Inspector's Report which was distributed early in the present year and by the table for apportioning the grant, which is printed on page 4 of Instructions No. 12, four grades of accommodations are provided for, the differentiation of the grading according to the character of the accommodations being left to the judgment of the Inspector.

While the details in this circular provide the basis for the Inspector's grading in 1907-1908 and thereafter, he is directed now, as he was in the former edition of this circular, to use his judgment in securing necessary or desirable changes in present accommodations, having due regard to the interests of Education, the capabilities of the present premises, and the financial competency of the Boards. Not all the desirable and practicable improvements can be secured in a short time. In many cases it will take years before the condition of the Schools will become satisfactory, and at first the Inspector should direct his efforts towards securing the changes that are of prime importance. The key to the situation is reasonable persistence, aided by judicious use of the scheme of grants on the character of the accommodations.

As to the equipment: A few modifications have been made in the minimum equipment prescribed in Circular 33, of 1906. In particular, the amount of the expenditure on School libraries therein set forth is no

longer obligatory. As announced, however, in Instructions No. 12, p. 6, and No. 13, pp. 4-5, a special grant in aid of libraries over and above the 10 per cent. provided for in the general scheme of Legislative aid, will be distributed each year amongst the Rural Public and Separate Schools of the Districts and Organized Counties, on the same conditions as obtain during the present year. There is no more important part of the School equipment than the Library, and the Inspectors should make every reasonable effort to secure an adequate one in every School section.

As has already been intimated in Circular No. 44, it has been brought to the notice of the Minister that some trustees, through fear of losing the Government grant, have been induced by canvassing agents to purchase equipment in excess of what is required, sometimes at exorbitant prices; or articles of the prescribed equipment which are too costly or are unsuitable in character. Inspectors are, therefore, requested to take from time to time whatever steps they may think necessary to protect the interests of the schools under their supervision, and, if, in any case, an injustice has been done which demands an investigation, to report the facts in full to the Department. As far as possible, Inspectors should also see that no favoritism is shown to any firm furnishing school supplies, but that free and fair competition is allowed to all in order that trustees may have the full benefit thereof as to both the prices and the quality of the articles offered. In this connection attention is called to the general prohibitions contained in section 121, chap. 39, 1 Edw. VII., which apply to all school officials.

It is also expected that Inspectors will use their discretion in allowing, at least for a time, a reasonable valuation for such articles now in use in the schools as may fairly meet the requirements, and in this way prevent unnecessary difficulties in the introduction of the new system of distributing the grants to Rural Schools.

The different items of the equipment (both Equipment No. 1 and Equipment No. 2), with their values, should be entered from time to time in the Catalogue which has been sent to each school for this purpose. The Trustees are required to make proper arrangements for the care of the equipment and to give the Inspector all necessary information regarding their purchases, together with vouchers from the dealers concerned. The Inspector is required to inspect the equipment from time to time, lowering the valuation of such articles as are out of repair and striking off such articles as are missing or are no longer of use. The ten per cent. grant provided for in Instructions Nos. 12 and 13 is to be allowed on all items recognized in Equipment Nos. 1 and 2 below.

As is provided in Instructions No. 12 for the Organized Counties, and for the Districts next year in Instructions No. 13, where the assessment is \$30,000 or over, a definite amount of the grant on accommodations and equipment is apportioned to each Inspectorate, to be apportioned by the Inspector amongst his Rural Schools, without respect to township boundaries. With this limitation, variations amongst the standards of the different Inspectors will accordingly result in no injustice, so long as each Inspector maintains the same standard in his valuation of the equipment and his appraisal of the character of the accommodations.

Manifestly, however, it will be prudent for each Inspector to set a high standard from the first, and, at his visits to his schools, to discuss his reports fully with the trustees.

ACCOMMODATIONS.

(1) *School Grounds.*—The school site shall not be less than one acre in area, unless, owing to the smallness of the attendance or to other local conditions, the Inspector finds a smaller area permissible, but in that case the area shall not be less than half an acre. It shall be accessible by good highways and not exposed to disturbing noises or noxious odors; also at a safe distance (not less than 100 yards) from stagnant water. The school grounds shall be properly levelled and drained and provided with suitable walks. For the highest grading the grounds shall be ample for school games and for an ornamental plot in front. They should also be set out with trees and ornamental shrubs, and enclosed by a neat and substantial fence or hedge, with suitable gates. Unless so protected, the school grounds shall not be rated of the highest grade. In order to ensure good drainage and water supply, the soil should, if practicable, be sandy or gravelly, not clayey or peaty. No trees shall be placed so close to the school building as to check the free passage of air and light.

(2) *Closets.*—The closets for the sexes shall be under separate roofs and placed at least 50 feet from the well and at least 25 feet from the rear of the school building (unless where flushed by an adequate water system), to prevent pollution of the well or of the air of the class-rooms. Each closet-room shall contain a sufficient number of compartments properly lighted and ventilated. The closets shall be lined with glazed brick or similar material; or of wood, painted a suitable color and sanded, with floors of cement, brick, or hardwood, placed at least a foot above the ground. Urinals lined with zinc or galvanized iron, or of slate or smooth cement should be provided for the boys (3 ft. urinal space for each closet seat). For the highest grading there shall be locked compartments for the teachers. Suitable walks shall be laid from the doors of the school building to the closets, so that the closets shall be accessible with comfort at all seasons of the year; and provision shall be made for keeping the walks free from snow in winter. At the discretion of the Inspector, a high close board fence or a hedge or a wall shall be provided between the boys' and the girls' side, from the closets towards the rear of the lot and towards the school building; and the closets shall be placed at least ten feet distant from each other. The entrance to the closets shall be properly screened at least in front (spruce trees preferred), and the principal shall see that the doors are securely fastened after school hours and are opened before school hours.* The closets shall be cleansed and disin-

*The woodshed may be placed at some distance from the school house, or immediately in rear thereof, with or without doors opening into the school room. The doors should be placed, one at each end of the school wall. With a partition down the centre of the woodshed, a covered passage may be provided to the water closets at the rear. To prevent the possibility of the air of the school room being polluted, the closets may be placed about ten feet in rear of the woodshed. If, however, the closets are placed close to the woodshed, the greatest care must be taken to have them regularly cleaned and disinfected and thoroughly ventilated.

fects monthly if possible, and the urinals shall receive daily attention. Dry earth closets or closets with draw-boxes are to be preferred. Road dust will suit as a deodorizer.*

(3) *Water Supply*.—The water supply shall be pure and adequate. There should be on the premises a well (artesian if at all practicable) of good drinking water, with a neat pump and platform, properly protected against pollution from surface drainage or any other source. If a dug well, it shall be thoroughly pumped and cleaned out at the close of each vacation and at such other times as may be deemed advisable by the Inspector. Graniteware pails with covers, or, for the highest grading, earthenware or graniteware water-tanks with covers, and drinking cups of glass or good enamelled ware, shall be provided and kept scrupulously clean. Where there is no well, other provision, satisfactory to the Inspector, shall be made for an adequate supply of good water.

(4) *School Building*.—The grading of the school building shall depend upon the character of its site and of its construction. It should be well constructed of brick, stone, or cement, with brick partitions. The building should have a southern or south-eastern exposure and shall be at least thirty feet from the public highway. Its architectural appearance shall also be considered. The entrance shall have a vestibule or covered porch, with doors swinging outwards or either way. In schools with more than one teacher, for the highest grading, there shall be separate entrances and separate means of egress to the closets. Where there are two stories, the second floor shall be sound-proofed with mortar, felt, or other suitable material. A school bell and, in schools with more than one story, a fire alarm gong shall be provided. Every school should have, as a recreation room, a basement, at least seven feet high in the clear; ceiled with wood or metal sheeting, to keep the floors above warm (plaster obviously objectionable); and having a pine, hardwood, or (preferably) cement floor. Cordwood shall be well dried before being stored in the basement. Where there is no basement, an adequate woodshed shall be provided, of wood, brick, or other suitable material, with proper doors and locks. The woodshed shall be stained or painted a suitable color. Both a basement and a woodshed, being more sanitary, are greatly to be desired; the former being used as a recreation room in inclement weather especially for the younger pupils, and the latter for the wood and other supplies.

(5) *Class Rooms*.—The class rooms shall be oblong; the length being greater than the breadth, to allow the pupils' seats to be arranged in a square, leaving a clear space with the teacher's desk in front; and the height being about 13 feet. The class rooms shall also seat comfortably all the pupils. A superficial floor area of at least 16 square feet, and a cubic air space of not less than 250 feet, shall be allowed for each pupil, the provision being based on the highest attendance. Hardwood is preferable for the floors and stairways. Any wood of such quality and grain as would suit for an oil or varnish finish will suit for the rest of the wood-

*Trustees and Inspectors should consult the pamphlet issued by the Provincial Board of Health, Toronto, entitled "Revised Rules for Checking the Spread of Contagious or Infectious Diseases and Hints on Methods for Dealing with Municipal and House Wastes."

work. Wood finish, instead of plaster, may also receive the highest grading. If calcimined or papered, the walls shall be kept free from dust, and renovated when needed. If painted, they shall be washed down and repainted also when needed. Where it is difficult to keep the ceilings in repair, metallic sheeting should be used. Suitable color schemes (the ceilings always being white) should be adopted for the halls and classrooms. A soft color—a light greenish or stone grey or a dull blue—suits the class-room walls; while for the halls terra-cotta shades afford a suitable contrast.

In one-teacher schools with halls, cap-rooms, etc., and in large schools, transoms, hinged at the bottom, shall be placed over the class-room doors. The doors shall swing outwards or either way. At least one waste paper basket shall be provided for each room, and the floors shall be kept in good order. A closet or a cabinet shall be provided for utensils used in school work; also a suitable bookcase, and shelving for lunch baskets or lunch pails. In order to cultivate the pupils' taste by suitable surroundings, the class rooms should be decorated, as soon as practicable, with good pictures and other suitable ornaments.* Durable scrapers and mats shall be placed at the outside doors. In localities where flies are troublesome wire screens should be provided for the doors and windows.†

(6) *Teachers' Private Rooms.*—There should be a room for the private use of the teacher or the staff, of suitable size and comfortably furnished. In schools with more than one teacher, to be erected hereafter, private rooms should always be provided.

(7) *Halls.*—The entrances, vestibules, and halls shall be roomy and well lighted, and, where there are more entrances than one, they shall be so placed as to admit of separate entrances for the sexes to the cap and class rooms. For the highest grading, in buildings of two stories, there shall be separate stairways for the sexes, easy of access and well guarded. In the hall, also, suitable color schemes and decorations should be provided.

(8) *Cap Rooms.*—For the highest grading, and in all schools with more than one teacher, to be erected hereafter, separate cap-rooms shall be provided for the sexes. The cap-rooms, properly heated and ventilated, shall be convenient to the class-rooms, and should be provided with wash basins and towels and with all the necessary appliances for storing umbrellas and for hanging caps or cloaks. Where there are no cap-rooms or halls, there shall be a supply in the class-rooms of hooks (one for each pupil) for caps, cloaks, etc. Curtains should be strung on rods or wires

*Early next year a list of suitable pictures, etc., may be obtained on application to the Education Department. The quality of such pictures, etc., is of far greater importance than the number.

†Inspectors and School Boards should consult "School Sanitation and Decoration," by Burrage and Bailey; \$1.50; D. C. Heath & Co., New York City; also "Among Country Schools," by O. J. Kern, \$1.25, Ginn & Co., New York City. The latter work treats also of School Grounds, School Gardens, the New Agriculture, Consolidation, etc. Numbers of "The School Trustee," published by the Educational Publishing Co., of Toronto, also deal with the foregoing matters.

to conceal such clothing, and there should be a clear space of about a foot between the curtain and the clothing.

(9) *Desks*.—Every school house shall be seated with either double or single desks having noiseless joints, such single desks being preferable and being necessary for the highest grading.* The pupils' desks shall be fastened to the floor in rows facing the teacher's desk, with suitable aisles between the rows and with passages at least three feet wide between the outside rows and the walls of the school room. The desks and seats shall be graded in size to suit the age of the pupils, those of the same size being placed in the same row.† In each school room the outer row on each side should consist of adjustable seats and desks, to be adapted to pupils below or above the average size to be seated. The pupil, when seated, must be able to place his feet fully and easily on the floor. The number of the desks shall be adequate for the number on the roll.

There shall be a suitable desk and chair in each class room for the use of the teacher, and at least two additional chairs. The teacher's desk shall be provided with drawers or compartments, having lock and key. There should be a table of suitable size (about $2\frac{1}{2}$ feet by 10 feet), around which the younger pupils may assemble to do part of their work. Where Chemistry or Physics is taken up in a higher class, a suitable table shall be provided for the experiments; and, in such schools, this provision shall be necessary for the highest grading. A sloping stand for the gazetteer and the large dictionary shall also be provided; or a shelf under the window nearest the teacher's desk, about 2 feet long by 14 inches broad, fastened to the wall and with a bracket below to sustain it. A suitable desk may be substituted for the shelf.

(10) *Blackboards*.—There shall be a blackboard of good quality, about four feet wide, extending across the room in the rear of the teacher's desk, with its lower edge not more than two and one-half feet above the floor or platform; and there shall be additional blackboard provision

*For sanitary reasons and to secure independent work by each pupil, single desks are greatly to be preferred.

†Desks according to the following scale shall be considered as meeting the requirements:

Age of pupils.	Seats.			Desks.			
	Height.		Slope of back.	Length.		Width.	Height next pupil.
	Front.	Rear.		Double.	Single.		
Five to eight years.....	11 in.	10½ in.	2 in.	36 in.	18 in.	12 in.	22 in.
Eight to ten years.....	12 "	11½ "	2 "	36 "	18 "	12 "	23 "
Ten to thirteen years.....	13 "	12½ "	2½ "	36 "	20 "	13 "	24 "
Thirteen to sixteen years.....	14 "	14½ "	3 "	40 "	22 "	13 "	26 "

on each of the other available sides of the room.* Slate is greatly to be preferred to plaster or wood or hyloplate. There shall be an adequate supply of blackboard brushes and crayons. At the lower edge of each blackboard there shall be a trough, about five inches wide, for holding crayons and brushes. The troughs and brushes shall be regularly cleaned, a damp cloth or eraser being used for the troughs. The cloth or eraser, when dry, should be cleaned outside of the school room. Each blackboard trough should have an open woven wire cover on hinges. *Every possible precaution should be taken against dust in the school room.* Where there is a platform† it shall be from five to six inches high and should extend across the room where practicable.

(II) *Lighting.*—For the highest grading‡ the class rooms shall be lighted only from the left of the pupils, the lower edges of the windows being above the heads of the pupils when seated (from 4 to 4½ feet from floor). Where there are supplementary windows in the rear the blinds shall be kept down, except on dull days. To admit of an adequate diffusion of light throughout the whole class room, the windows shall be numerous (area, one-sixth of the floor space, where the exposure is good; otherwise a greater area), and of clear (not ground or painted) glass; narrow, with two or four panes each; and running as close to the ceiling, as close together, and as far to the rear of the class rooms, as practicable. To prevent reflection from the blackboard, the windows should begin about six feet from the front wall of the class room. The windows shall also be provided with blinds of suitable color (light green or grey or greenish grey). The blinds on the left of the pupils should be semitransparent; other blinds, opaque. On dull days, windows that have already

*The following directions for making a blackboard may be found useful (*Such blackboards, however, are never satisfactory*):

(a) Where a brick wall is built solid, and also in case of frame buildings, the part to be used for the blackboard should be lined with boards, and the laths for holding the plaster nailed firmly on the boards

(b) The plaster for the blackboard should be composed largely of plaster of Paris.

(c) Before and after having received the first coat of color it should be thoroughly polished with fine sand paper.

(d) The coloring matter should be laid on with a wide, flat varnish brush.

(e) The liquid coloring should be made as follows:—Dissolve gum shellac in alcohol, four ounces to the quart; the alcohol should be ninety-five per cent. strong; the dissolving process will require at least twelve hours. Fine emery flour with enough chrome green or lampblack to give color, should then be added until the mixture has the consistency of thin paint. It may then be applied in long, even strokes, up and down, the liquid being kept constantly stirred.

†Platforms are now seldom used. Instead, a stool 12 in. by 42 in. and 6 in. high is provided for the teacher's use when he needs the upper part of the blackboard. If the top is hinged, the stool may be used to store various articles.

‡Light from above is best; but light from the left is the best available, for it throws any shadow off the pupil's book, etc. When, as directed above, the windows are run up to about half a foot from the ceiling, a good deal of the light on the left comes from above. To secure as much of this light as possible the tops of the windows should be square rather than curved. Light from the rear is objectionable, because it is in the teacher's eyes. Cross lights are injurious. Where there are already windows in front of the pupils, it is indispensable that they be closed up: such lighting is most injurious to the eyes.

been provided on the right may be made serviceable; but, if the light from the left is adequate, their blinds should be kept down at other times. The blinds shall be provided with cords so as to be readily adjustable to any required height.

(12) *Heating*.—The temperature of the class rooms, halls, cap-rooms, and teachers' private rooms shall be, as nearly as practicable, 67 degrees. A thermometer shall be provided for each class room. For first-class grading, steam radiators or hot air furnaces, or jacketed stoves acting with equal efficacy, are necessary. Where stoves are used, they shall be so placed as to prevent discomfort to any pupil; shall be protected by a jacket of tin, zinc, or galvanized iron; and shall be provided with a strong iron poker and shovel, and an iron pail for ashes. The stove-pipes and the chimneys shall be kept free from soot and dust. Both stoves and stove-pipes shall be polished at least three times a year.

(13) *Ventilation*.—Provision shall be made for an adequate supply of pure air at all times. The foul air shall be removed and the pure air supplied so that there shall be a complete change at least three times an hour. The windows of every school building shall be adjusted by weights and pulleys; and, when the outside temperature permits it, they will provide the necessary change of air. At recess they may also be raised from below and lowered from above, according to the outside temperature. In cold weather, the necessary constant ventilation cannot be secured by the windows. Where there is a stove, the pure air shall be admitted directly from the outside through sufficient ducts running under the floor and opening below the stove. This pure air supply shall be under control by slides to open or close the ducts. Where steam heating or a hot air furnace is used, the pure air shall be admitted directly from the outside, at a height of about four feet from the ground, to the base of the furnace. In the air space of each furnace or within the jacket of each stove there shall be a pan filled daily with water, so as to furnish the warmed air with the necessary moisture. Air *shall not* be taken from the school room or from the basement to supply the furnace, except in the morning before school, after which this source of supply *must* be shut off.

In cold weather, the foul air shall be taken away from near the floor and out through ventilating ducts in the chimney, which ducts should be somewhat larger in area than the incurrent pure air ducts. In buildings where ventilating ducts have not been provided in the chimneys, two tin, zinc, or galvanized iron pipes of sufficient size to allow air to be changed three times an hour (the ducts being about nine inches by twelve inches) should extend on opposite sides from near the floor, connecting below with the class room and running up through the ceiling beside the chimney, and so placed as to be well heated. When the pipe cannot be so placed, pipes of large diameter (a foot) with revolving cowls on the top of each will prove effective. Openings, with regulating slides, should also be provided in these ducts near the ceiling for use only in warm weather or when the room is overheated. When needed, a cowl should be placed so as to cover properly the chimney and the excurrent foul air ducts. In new buildings a double flue chimney shall be built, the ventilating flue opening into the school room.

Where storm sashes are used on the outside, they shall contain sliding panels or shall be hinged at the top, to allow of the ingress of pure air; or they may be placed on the inside and also hinged at the top. It answers equally well to have double panes of glass about one-half inch apart in the same sash.

NOTE.—Model plans for Rural School buildings and School grounds are being prepared by the Education Department and will be ready for distribution early next year. On application by Rural School Boards, the Forestry Department of the O.A.C., Guelph, will, in the spring of the year, supply the following seedlings for planting in their school grounds: *Evergreens*: Norway Spruce, White Pine, Scotch Pine, and White Cedar; *Deciduous*: White Ash, Black Locust, Manitoba Maple, Catalpa and Tulip-tree or White Wood.

EQUIPMENT NO. 1.

Each school shall have at least a globe, not less than eight inches in diameter and properly mounted;* a map of the hemispheres (or a map of the British Empire, showing also the hemispheres); a map of each continent, a map of Canada, a map of Ontario, a map of the county (if a suitable one is published), a map of the British Isles, a numeral frame (or an adequate supply of loose cubes); a good clock for each class room, kept in good condition; a set of mensuration surface forms and geometrical solids; a blackboard set for each class room (a protractor, a triangle, a pair of compasses, two pointers, a graduated straight edge); a pair of scales, with weights, to weigh from half-ounce to at least four pounds; a set for measure of capacity (pint, quart, gallon); a set for linear measure (inch, foot, yard,† tape line); a set for square and cubic measures; a school library containing an atlas or a gazetteer, a standard dictionary (with English pronunciation), Supplementary Readers (at least one for each pupil of each form), and a suitable reference dictionary for each additional class room.

When, owing to the absence of Fourth Classes or of Fifth Classes, some of the above equipment is not necessary, it may be omitted at the discretion of the Inspector.

As soon as practicable, the equipment prescribed above should be provided; but in carrying out this provision, the Inspector is hereby directed to use his discretion, having regard to individual conditions.‡

EQUIPMENT NO. 2.

Besides the above list, the Education Department has issued a catalogue of books suitable for Public School libraries. From this list, or from a list recommended by the Inspector for his Inspectorate and ap-

*A twelve-inch globe is much to be preferred.

†The graduated straight-edge, if suitable, may be used instead.

‡In order to assist boards in providing suitable equipment, a special Legislative Grant of \$60,000, with a county equivalent in the case of each school, was distributed in 1906; and the increased grants of the present scheme of distribution will supply additional funds.

proved by the Minister of Education, additional books may be selected for the School library. (Regulations 117, 118, 121, and 122 of 1904 have been cancelled. See Regulations 115, 116, 119, and 120 of the same year, which are still in force.)

The Education Department has also issued two other lists for Public Schools; Circular No. 6A (a list of scientific apparatus suitable for Fifth Classes), and Circular No. 6B (a list of equipment for Domestic Science, Constructive Work, and School Gardens).

From these lists, Boards should select, on the advice and with the approval of the Inspector, such books and apparatus as may be needed for the work done in the several departments. These lists have already been distributed, but additional ones may be obtained upon application to the Inspector.

The additional equipment may also include such drawing models and such other charts, maps, and globes as may be suitable for the work of the Public School departments. The percentage will also be allowed on the value of pictures, etc., selected from the Departmental list.

OTHER REGULATIONS CONCERNING ACCOMMODATIONS.

1. The trustees shall appoint one of themselves or some other suitable person to keep the school house and premises and all fences, water-closets, outhouses, walks, windows, desks, maps, blackboards, and stoves in proper condition. It shall be the duty of the teacher to inspect the premises daily and report to such officer without delay any needed repairs or want of cleanliness. The trustees shall provide for washing the floors at least quarterly (monthly to be greatly preferred), and for renovating during the summer holidays as often as may be needed, the walls and ceilings if papered or plastered, or for washing them if finished in wood or metal sheeting and painted. The trustees shall also employ a caretaker whose duty it shall be to sweep the floors daily (the windows being then open), to dust daily all the furniture, window ledges, etc., with damp dusters (preferably in the morning at least an hour before school); to make fires, at least one hour before the opening of school, at such times as the teacher may direct. The duties of the caretaker shall be performed satisfactorily to the Principal and to the Inspector, who, in his grading, will take into account the condition of the accommodations at the time of his visit.

2. No Public School house or School grounds, unless otherwise provided for in the conveyance to the trustees, shall be used for any other than Public School purposes without the consent of the trustees, and no advertisements shall be posted in any school room or distributed to the pupils unless approved in the same way.

At the recent session of the Legislature, school trustees were also given the power "to permit the school house and premises to be used for any educational or other lawful purpose which in their discretion they think proper, provided that the proper conduct of the school is not interfered with."

3. All new school sites and all additions to old ones and all plans of new schools or of additions to old ones, and all other proposed school accommodations, shall be first approved by the Inspector of Public or Separate Schools (as the case may be), who shall be guided by the instructions contained herein.

SCHOOL FLAGS.

At the recent session of the Legislature, the sum of \$5,000.00 was voted as a first grant towards providing with the Union Jack every rural school house in Ontario. The flags are now being prepared, and, as soon as practicable, one will be supplied to each rural school board on application to the Education Department. If, however, a board has already purchased a flag, the cost thereof, when not greater than that of the flag now offered, will be paid by the Education Department on presentation by the board of the receipted bill. The board, itself, however, is expected to supply the flag-pole either in the school yard or over the school house.

Except when flown on public holidays, or on other occasions by direction of the school board, the flag shall be displayed on the wall of the school-room, or when there are more than one school-room, on the wall of that one in which all the pupils assemble; and, as occasion may offer, its history and significance shall be suitably explained to the pupils by the teacher.

ELEMENTARY AGRICULTURE AND HORTICULTURE.*

1. Any rural school board, or any school board in a village, that provides and maintains a School Garden with the accommodations and equipment prescribed below shall be entitled to an initial grant not exceeding one hundred dollars, and a subsequent annual grant of twenty dollars out of any grant made for Elementary Agriculture and Horticulture by the Legislature, to be expended in caring for such School Gardens and for keeping the school grounds in proper condition.

2.—(1) The area of the School Garden shall be sufficient for the number of plots required, and shall be at least one quarter of an acre in addition to the requirements as to area of the regular school grounds in each case prescribed by the Education Department. The School Garden shall be adjacent or convenient to the regular school grounds.

(2) The school board shall provide the necessary tools, implements, seeds, and other requisites, and also a garden shed, or a suitable apartment, for the storage thereof and for use as a working laboratory.

3. One legally qualified teacher in each school, who holds a certificate from the Macdonald School at Guelph or any other institution approved by the Minister of Education, that he is competent to give instruction in Elementary Agriculture and Horticulture, and who shall thereafter give instruction, approved by the Inspector, in said subjects at any Rural or Village Public School having a School Garden attached, in accordance with the Regulations of the Education Department from time to time, shall be entitled to receive an allowance at the rate of thirty dollars a year from any sum voted by the Legislature for these subjects.

*In 1906, \$2,000 was voted for Elementary Agriculture and Horticulture, but only \$124.50 of this sum was spent. This year also the same sum has been voted. An explanatory circular on this subject will be issued in September. Teachers intending to qualify as teachers of Elementary Agriculture and Horticulture under the above regulations should address the Ontario Agricultural College, Guelph, for particulars. Teachers who have already taken Nature Study courses at Guelph will have their work accepted in part for the certificate.

4.—(1) Should the sum voted by the Legislature not be sufficient to pay in full the grants on the foregoing bases, the Education Department will make a *pro rata* distribution of the sum voted.

(2) The grants will be payable on the certificate of the Inspector that the school board and the teacher have complied with the conditions prescribed above.

(Regulations 123 to 131, of 1904, are hereby rescinded.)

SEPTEMBER, 1907.

For Consideration

Special Commercial Course

FOR

High Schools and Continuation
Schools.

PRINTED FOR
ONTARIO EDUCATION DEPARTMENT



TORONTO

Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty.
1909

Special Commercial Course, for High and Continuation Schools.

Prefatory Memorandum.

In the following revised special Commercial Course for the High and Continuation Schools, the Department of Education seeks to correct the faults which experience has shown to exist in the present course. It is now placed in the hands of the Principals and the Commercial teachers for consideration until the close of the present half-year.

The proposed course is a two years' one, and is intended to provide a fair elementary education with such special attention to the commercial subjects as will fit a pupil for one of the less responsible business positions. The subjects are obligatory except where an option is indicated; but where local conditions necessitate any modification, the Principal may make them, subject to the approval of the Inspector.

Course of Study—First Year.

1. *English Literature* : The ordinary course of the Lower School.
2. *Practical English Grammar and English Composition*. Business correspondence including letters of introduction, application, and invitation, advertisements, notices, orders.
3. *History* : The ordinary course of the Lower School.
4. *Geography*: The ordinary course of the Lower School in Mathematical, Map, Physical, and Commercial Geography, with a special course in the products and industries, communication and transportation, and domestic and foreign trade.
5. *Reading* : The ordinary course of the Lower School.
6. *Spelling* : Words in common use, commercial terms, common geographical names, names of noted persons.
7. *Drawing* : The ordinary course of the Lower School.
8. *Writing* : Special attention to position and movement and the principles of letter construction. The formation of a graceful business hand. Figures, ledger headings, addresses. (Five periods a week.)
9. *Arithmetic* : Review of elementary work. Percentage and its applications to loss and gain, trade discount, commission, insurance, taxes, duties, interest and bank discount. Special attention to rapid calculation and mental arithmetic. Elementary Mensuration.
10. *Shorthand* : Isaac Pitman's Short Course in Shorthand.
11. *Bookkeeping and Commercial Transactions* :
Simple business forms; Receipts, promissory notes, drafts, orders, deposit slips, cheques, bank drafts, bills of goods, invoices, accounts, endorsements and consequent liability.
Double and Single Entry, involving the use of Journal, Cash book, Invoice book, Sales book, Bill book, Ledger, Financial statements, and closing the books. Changing from Single to Double Entry.
12. *Physical Culture* : The ordinary course of the Lower School.

13. *Algebra* : The ordinary course of the Lower School (optional except for pupils who take the two years' course).

14. *French and German* : The ordinary course of the Lower School with emphasis on business correspondence. (Both languages or either, optional in the case of pupils who take the full course.)

Second Year.

1. *English Literature* : The ordinary course of the Lower School.

2. *Composition* : The course of the First year continued, with special attention to correspondence.

3. *History* :—FIRST TERM : How we are governed : Parliament, legislature, municipal government.

4. *Geography* :—SECOND TERM : Study of Commercial products, their source, preparation, supply, markets. Mechanism of Commerce.

5. *Spelling* : The course of the First Year continued.

6. *Drawing* : The ordinary course of the Lower School.

7. *Writing* : The course of the Lower School continued. (Two periods per week.)

8. *Arithmetic* : The Lower School course continued, with continued special attention to rapid calculation and Mental Arithmetic.

9. *Bookkeeping and Commercial Transactions* : Use of special columns in books of original entry. Partnership and sharing of profits by different methods. Commission business. Manufacturing accounts. Trading account and comparative statements. Simple Joint Stock Company accounts. Practical treatment of freight, duties, discounts, bad debts, contracts, negotiable paper, statutes of limitations and of fraud, money and bank, partnership, collection of accounts, insurance.

10. *Shorthand* : Speed of 80-100 words per minute ; transcription on typewriter at 15-30 words per minute.

11. *Typewriting* : The Touch method ; Letter-writing ; addressing envelopes and postcards ; legal forms. Speed of 30 words a minute.

12. *Physical Culture* : The ordinary course of the Lower School.

13. *Algebra* : The ordinary course of the Lower School.

14. *French and German* : The ordinary course of the Lower School continued, with special attention to commercial correspondence.

Third Year.

In a few Schools in the larger centres of population, a Third Year's Course may be practicable. The Minister will consider, with a view to approval, any proposal made therefor by a Board of Trustees. It is recommended that such course be constructed on the following lines :

The continuation of the work of the Second year in English Literature, English Composition, Arithmetic, Bookkeeping, Shorthand, Typewriting, and the Language option, with

(1) An outline of the leading events in the History of Commerce with special reference to modern times ; and

(2) The Mechanism of Commerce and the laws of production, exchange, and distribution of wealth.



CIRCULAR FOR LIBRARIANS ON CLASSIFICATION OF BOOKS IN PUBLIC LIBRARIES.

In 1895 a departmental Catalogue was published to assist Librarians in the classification of Books in Public Libraries. As explained in the preface it was not considered advisable to change the principal headings, or subjects, which had been in use in Mechanic's Institutes for over 25 years, viz.—History ; Biography ; Voyages, Adventure and Travel ; Science and Art ; General Literature ; Poetry and the Drama, Religious Literature ; Fiction ; Miscellaneous Books ; Reference Books.

Under these headings, or subjects, all Libraries receiving a share of the Legislative Grant are required to send Annual Reports of Books purchased, loaned, etc., to the Education Department.

In order to guide Librarians the following synopsis of classification, with principal and sub-headings from the departmental Catalogue (out of print) is now issued, with the request that Librarians of all Public Libraries receiving Government aid will conform to the regulations of this Department, so that we may have an uniform classification.

HISTORY.

I. ANCIENT HISTORY.

1. History of Egypt, Persia, etc., (Including Historical Romances) Archaeology and Mythology.
2. History of Rome, (including Historical Romances).
3. History of Greece, (including Historical Romances).

II. MEDIEVAL HISTORY.

History of the Crusades, (including Historical Romances).

III. MODERN HISTORY.

A Europe.

1. History of the World. Europe, etc., (including Historical Romances).
2. History of Great Britain and Ireland, (including Historical Romances).
3. History of France, (including Historical Romances).
4. History of Germany, Austria, and Hungary, (including Historical Romances).
5. History of Holland, Denmark, Sweden and Norway, (including Historical Romances).
6. History of Italy, Switzerland, etc., (including Historical Romances).
7. History of Spain, Portugal, etc., (including Historical Romances).
8. History of Russia, Poland, and Turkey, (including Historical Romances).

B. Asia.

1. History of China, Japan, and Sandwich Islands.
2. History of India, (including Historical Romances).
3. Miscellaneous Asiatic History. (including Historical Romances).

C. Africa.

History of Africa, (including Historical Romances).

D. America

1. History of North and South America, (including Historical Romances).
2. History of British North America, New France, etc., (including Historical Romances).

E. Australia.

History of Australia, New Zealand, etc., (including Historical Romances).

IV. MISCELLANEOUS HISTORICAL BOOKS

1. Great Battles, Sieges, etc., (Ancient and Modern).
2. Historical Tales.

BIOGRAPHY.

I. INDIVIDUAL BIOGRAPHIES.

1. English, Scottish, and Irish.
2. English, Scottish, and Irish, (published in series).
3. French, German, Italian, Spanish, etc.
4. French, German, etc., (published in series).
5. American, (Canada and the United States).
6. American, (published in series).
7. Miscellaneous Individual Biography, (published in series).

II. COLLECTIVE BIOGRAPHY.

1. Classical.
2. Historical Characters.
3. Literary and Scientific Men and Women.
4. Artists and Musicians.
5. Celebrated Men, Women and Children.

VOYAGES, ADVENTURE AND TRAVEL.

I. VOYAGES AROUND THE WORLD.

Travel and Adventure round the World.

II. EUROPE.

1. Travel and Adventure in Europe, (various countries).
2. Travel and Adventure in England, Scotland, and Ireland.
3. Travel and Adventure in France, Germany, Spain, etc.
4. Travel and Adventure in Italy, Greece, Russia, etc.

III. ASIA.

1. Travel and Adventure in Egypt, Palestine, etc.
2. Travel and Adventure in China, India, Japan, etc.

IV. AFRICA.

Travel and Adventure in Africa, Madagascar, etc.

V. AMERICA.

Travel and Adventure in North and South America.

VI. TRAVEL AND ADVENTURE IN THE ARCTIC REGION, WHALE FISHING, ETC.

VII. TRAVEL AND ADVENTURE IN AUSTRALIA, NEW ZEALAND, PACIFIC OCEAN, ETC.

VIII. THE OCEAN, SEA AND SAILORS.

IX. MISCELLANEOUS TRAVEL AND ADVENTURE (INCLUDING TALES FOR YOUNG PEOPLE).

SCIENCE AND ART.

I. NATURAL SCIENCE.

- A. Anthropology, Ethnography, Ethnology, Biology, etc.
- B. Zoology—Mammalia, Birds, Reptiles, Fishes, etc.
- C. Entomology.
- D. Botany.
- E. Geology and Mineralogy.
- F. Natural Phenomena, Meteorology, etc.
- G. Astronomy.
- H. Chemistry.
- I. Physics—Mechanics, Heat, Light, Sound, etc.

II. USEFUL ARTS.

A. Agriculture.

1. The Farm, Forests, Manures, etc.
2. Gardening, Fruit, Vegetables, etc.
3. Horses—Breeding, Training, Riding, etc.
4. Cattle, Sheep and Pigs.
5. The Dairy, Poultry, Pigeons and Bees.
6. Dogs, Rabbits and Domestic Pets.

- B. Electric Arts, Steam, etc.
- C. Microscope, Telescope, Phonography, etc.
- D. Architecture and Engineering.
- E. Carpentry, Painting and other Trades.
- F. Miscellaneous Science and Manufactures for Young People and Amateurs.
- G. General Science, Discoveries, Inventions, etc.

III. FINE ARTS.

1. Drawing, Painting, Sculpture, Engraving, Heraldry, etc.
2. Music.

IV. DOMESTIC ARTS.

1. Physiology, Medicine, Hygiene, etc.
2. Home Life, Domestic Science, Sanitation, etc.
3. Amusements, Sports and Pastimes and Physical Culture.

V. ENGLISH LANGUAGE, ART OF TEACHING, ETC.

1. English Language.
2. Art of Teaching.
3. International Education Series.
4. Education in Europe, America, etc.
5. Universities, etc.

GENERAL LITERATURE.

1. Ancient Literature.
2. English, Irish and Scottish Literature.
3. American Literature.
4. European and Foreign Literature.
5. Authors and Authorship.
6. Law and Constitutional History.
7. Political Economy and Sociology.
8. Mental, Moral and Political Science.
9. Moral Tales, Essays, Romances, etc.
10. Temperance Literature.
11. Juvenile Literature.

POETRY AND THE DRAMA.

1. English, Irish and Scottish Poets.
2. American Poetry—Canada and the United States.
3. Miscellaneous Poetry—Ancient and Modern.

RELIGIOUS LITERATURE.

1. Biblical History and Bible Lands—History of the Jews, etc.
2. Early Church History and Progress of Christianity.
3. Modern Church History.
4. The Reformation, Martyrs, etc.
5. Missionaries and Missions.
6. Religious Biography, Great Preachers, etc.
7. Natural Theology and Christian Ethics.
8. Religious Tales and Stories.
9. Non-Christian Religious Systems.

FICTION.

European and American Novels.

MISCELLANEOUS BOOKS.

1. Anecdotes and Short Stories.
2. Detective Stories.
3. Fairy Tales, Fables, etc.

REFERENCE BOOKS.

1. Dictionaries and Encyclopedias—Biblical, Classical, Biographical, English, etc.
2. Science and Art, Manufactures, etc.

EDUCATION DEPARTMENT,
TORONTO, January, 1902.



Circular to Trustees of Continuation Schools

It has come to the knowledge of the Education Department that some teachers who hold only Interim First Class Certificates have recently been appointed Principals of Continuation Schools.

The attention of the Trustees of Continuation Schools is accordingly called to the following Regulations:—

“(1) In a Continuation School with one teacher, he shall hold at least a permanent Provincial First Class Certificate.

(2) In a Continuation School with two teachers, the Principal shall hold at least a Permanent Provincial First Class Certificate; and the Assistant, at least an Interim Provincial First Class or High School Assistant's Certificate.

(3) In a Continuation School with three teachers, the Principal shall hold the qualifications of a Principal of a High School; and each of his staff, the qualifications of an assistant teacher in a High School.”

Where School Boards are in doubt as to the qualifications of any teacher they should consult the Education Department.

The grants for Continuation Schools will not be available in any case where an unqualified teacher is employed.

TORONTO, August 16th, 1908.



Continuation Schools

AND

Fifth Classes.

AMENDED ACTS
AND
REVISED REGULATIONS
JUNE, 1908.

WARWICK BRO'S & RUTTER, Limited, Printers
TORONTO.



CONTINUATION SCHOOLS AND FIFTH CLASSES.

JUNE, 1908.

Since the introduction of Continuation Classes, both the Statute and the Regulations governing their establishment and their maintenance have been changed from time to time. Following are the sections of the Public and the Separate Schools Act pertaining to these schools, with the amendments up to date incorporated therein; also the revision of the Regulations of 1907 which has been necessitated by the action of the Legislature at its recent Session when the so-called Continuation Classes were re-organized as Continuation Schools and Fifth Classes:

AMENDED PUBLIC SCHOOLS ACT.

Section 8.—(1) Subject to the regulations of the Department of Education, the school corporation of any municipality or school section in which there is no high school shall have power to establish and maintain in connection with the public school over which it has jurisdiction, courses of study in addition to and in connection with the courses already provided for the fifth form of public schools. The classes established under such courses shall be known as Continuation Schools.

(2) The trustees of any number of public schools, or any number of public and separate schools, not situated in a high school district as defined by *The High Schools Act*, may, by mutual agreement, determine that such continuation schools shall be conducted in one of such schools for the benefit of the pupils of all of them, and in such cases the trustees of each of the said schools shall have power to provide, by additional or increased rates to be levied upon the same property upon which the other school rates are levied, for the establishment and maintenance of such continuation schools. The

said agreement shall specify the proportion of the cost of establishment and maintenance to be paid by the trustees of each of said schools, or shall provide for the settlement of the same by arbitration or by such other method as they deem expedient.

(3) Pupils shall be admitted into continuation schools and fifth classes in accordance with the regulations governing the admission of pupils into High Schools, or on the report of the principal approved by the public school inspector of the district.

(4) Non-resident pupils and all other pupils who have completed the course of study prescribed for the fifth form of public schools whether resident or non-resident, may be charged such fees as the trustees may deem expedient.

(5) Any teacher who on the 15th day of April, 1901, holds the position of principal of any school in which a continuation class has been established shall be deemed a qualified teacher of such school, but every teacher appointed principal or assistant after the date when this Act takes effect shall possess the qualifications prescribed by the Regulations of the Department of Education. (Act passed May 14th, 1906.)

(6) The municipal council of the county shall pay for the maintenance of continuation schools and fifth classes a sum equal to the legislative grant appropriated by the Minister of Education for such continuation schools and fifth classes and any further sums the municipal council may deem expedient.

The council of two or more counties united for municipal purposes may apportion the amount to be levied for continuation schools and fifth classes so that each county forming such union shall be liable only for sums payable in respect of continuation schools and fifth classes within such county. Where trustees of different schools situated in more than one of such united counties have joined together under subsection 2 for the conduct of continuation schools and fifth classes, the said council may determine the proportion to be paid by each of such counties in respect of such continuation schools and fifth classes.

(7) Where the Board of Trustees of a union school section establishes continuation schools or fifth classes in their school, or joins with one or more other Boards of Trustees in establishing such schools or fifth classes or hereinbefore provided, the Municipal Council of each municipality having the whole or part of its territory within the union school section shall levy and collect upon the taxable property of such union school section within its jurisdiction, its proper share of the expense of establishing and maintaining the said continuation schools or fifth classes according to the equalized assessment of each portion of the said union school section in the respective municipalities.

Under the following subsection (5), added to section 70, the Continuation Schools in Public Schools are entitled to the township grants for the teachers' salaries:

Section 70, subsection (5). For the purposes of subsections 2, 3 and 4 of this section every continuation school shall be deemed a public school.

5

AMENDED SEPARATE SCHOOLS ACT.

2. Subject to the Regulations of the Department of Education, the Separate School Board of any municipality, section or union section in which there is no high school shall have all the powers, duties and obligations conferred and imposed by *The Public Schools Act* and its amendments upon the public school corporation of any municipality, section, or union section in which there is no high school, respecting the establishment and maintenance of continuation schools and fifth classes.

3. The qualification of teachers of continuation schools and fifth classes in connection with separate schools shall be determined, however, under subsection 5 of section 8 of *The Public Schools Act* as amended by 6 Edw. VII. c. 53, s. 4, as if the date therein mentioned were the 17th day of March, 1902, instead of the 15th day of April, 1901.

4. The county council shall pay for the maintenance of continuation schools and fifth classes in connection with separate schools within the county, a sum equal to the legislative grant appropriated by the Minister of Education for such schools and classes and any further sums the said council may deem expedient.

5. The Department of Education may make provision by Regulation for carrying out the intention of this Act of placing continuation schools and fifth classes in connection with public and separate schools on the same basis, except as herein otherwise provided.

THE REORGANIZATION OF CONTINUATION CLASSES.

The Regulations of 1907 (Circular No. 37) are hereby rescinded.

Under the following regulations, which are substituted therefor, the Continuation Classes, Grade A, of 1907, become Continuation Schools; and the Continuation Classes, Grades B and C, Fifth Classes.

The increase of the Legislative Grant to \$45,000, made at the late Session of the Legislature to Continuation Schools and Fifth Classes, has enabled the Minister to deal with them more liberally in the following scheme of distribution than was proposed in Circular No. 37, of 1907. The Grants for the year ending June, 1908, will be made on the new scheme. *Inspectors, in making their reports, will, accordingly, supply any additional particulars needed to enable the Minister to carry out this intention.*

As a condition of the payment of the Legislative Grant in 1908, the Board of Trustees of each Continuation School and Fifth Class shall submit in the case of Continuation Schools, through the Inspector thereof, and, in the case of Fifth Classes, through the Public

or Separate School Inspector, as the case may be, in a form to be provided by the Education Department, a financial statement showing that it has expended on the special equipment the Special Legislative Grant made for the purpose in 1906; and, on the salary of the teacher and the special equipment of the Continuation School or Fifth Class for the academic year ending June 30th, 1908, an amount not less than the Legislative Grant and the County equivalent thereto, made in 1907.

Note.—Boards are reminded that the liberal grants given Continuation Classes during the past two years were intended to assist them not only to pay better salaries but to provide the special equipment, both of which are necessary for effective teaching.

ORGANIZED COUNTIES.

GENERAL REGULATIONS FOR BOTH CONTINUATION SCHOOLS AND FIFTH CLASSES.

I. County and Legislative Grants.

1. The yearly apportionment by the Minister of Education of the Legislative Grant to each Continuation School and Fifth Class in the organized counties shall be the total of the sums apportioned on the different bases set forth below in the case of each grade.

Note 1.—If, in 1908, the Legislative Grant is not sufficient for, or if there is a balance over, the apportionment on the bases provided below for each class of school, the Minister may make a *pro rata* adjustment of the total in the case of each class.

Note 2.—The object of the Grants is to assist School Boards to provide an adequate education for the children of the locality, not simply to reduce the local school rates. The Departmental scheme of apportionment helps those that help themselves.

2. (1) All sums received by a Board of Trustees from the Legislature and the County as a Continuation School or Fifth Class grant shall be expended on the salaries and the equipment of said School or Class alone.

(2) On or before July 15th of each year a financial statement shall be submitted through the Inspector concerned, by each Board to the Minister of Education in a form to be provided by the Education

Department, showing the receipts and expenditures on this account, with such additional particulars as the Minister may require.

(3) On or before July 15th of each year, as a condition of the payment of the Legislative Grant, the Inspectors concerned shall certify, in a form to be provided by the Education Department, that, to the best of their knowledge and belief, the provisions of the Regulations have been fully complied with.

Note.—Besides inspecting the time table at each of his visits, the inspector should require the principal to submit to him by the close of the year or on a change in the principalship, a copy thereof with a statement and explanation of any changes therein during the preceding session.

II. *Equipment.*

3. The organization of the Continuation School or the Fifth Class shall be subject to the approval of the Continuation, Separate, or Public School Inspector, as the case may be.

Note.—Before appointing a teacher, Boards of Trustees should consult the Inspector of Continuation, Public, or Separate Schools, as the case may be, in order that all the necessary subjects of study may be adequately provided for.

4. (1) The Equipment for a Continuation School or Fifth Class shall be for the special needs of such school or class and shall be approved from time to time by the Inspector of Continuation, Public, or Separate Schools, as the case may be.

Note.—On application to the Education Department circulars may be obtained containing lists of the necessary equipment.

(2) The date at which the minimum equipment of Continuation Schools or Fifth Classes shall be imperative shall be at the discretion of the Minister of Education on the report of the Inspector of Continuation, Public, or Separate Schools, as the case may be.

(3) From year to year, School Boards shall expend on equipment such further sums as may be required by the Minister of Education on the report of the Inspector of Continuation, Public, or Separate Schools, as the case may be.

Note 1.—Without the special equipment, the teaching cannot be effective, more particularly without a supply of suitable books for the library and of apparatus for simple experiments in the Physics and Chemistry of common life. In rural school sections the course in Elementary Science with its Agricultural applications should be made a prominent one. The work in Art, including the drawing of building and other plans, is also important. *For teachers who are not properly qualified in Art and Science, the Minister provides at the University of Toronto free Summer School classes, beginning in 1908.*

Note 2.—At least one locked press or cabinet should be provided to contain the books and the apparatus. The chemicals

should be kept in a separate press. For the safe-keeping of all the equipment, the Board should hold the principal responsible; and, on a change of principal, it should investigate the condition of the equipment.

Note 3.—The special equipment shall be entered under suitable heads in the catalogue separately from the ordinary equipment, which latter shall not be included in computing the grant for the Continuation School or Fifth Class. The catalogue and the invoices of new equipment shall be inspected at each visit by the Inspector or Inspectors concerned. The invoices shall be kept on file at the school. The various items of the equipment shall also be valued by the Inspectors as often as may be rendered necessary by the condition of said items.

III. *Teacher's Qualification.*

5. A teacher who was qualified for a Continuation School or Fifth Class under the Regulations of 1907, but who does not now hold the qualification under the scheme as herein reorganized, shall remain qualified under the same School Board for the Continuation School or Fifth Class in which he is now teaching.

Note.—When after due advertisement and offering the highest salary it is able to afford, a Board of Trustees is unable to obtain a legally qualified teacher, a temporary certificate, valid for the current half-year, may be granted by the Minister of Education, on the report of the Inspector concerned, to a suitable person, on application of said Board through the Public or the Separate School Inspector. (See Regulation 88, of 1904.)

SPECIAL REGULATIONS FOR CONTINUATION SCHOOLS.

I. *Minimum Requirements.*

6. The course of study for Continuation Schools shall be that prescribed for the Lower and the Middle School of the High Schools, of which the following subjects are obligatory on all pupils:

Geography, Arithmetic and Mensuration, English Grammar, Writing, Reading, English Composition, English Literature, History, Art, and Elementary Science. (See Reg. 14 (2).)

7. The pupils of the Continuation School shall be taught separately from the pupils of the other classes of the Public School.

8. (1) In a Continuation School with one teacher, he shall hold at least a permanent Provincial First Class certificate.

(2) In a Continuation School with two teachers, the Principal shall hold at least a permanent Provincial First Class certificate; and the Assistant, at least an interim Provincial First Class or High School Assistant's certificate.

(3) In a Continuation School with three teachers, the Principal shall hold the qualifications of a Principal of a High School; and each of his staff, the qualifications of an assistant teacher in a High School.

(4) Teachers of Continuation Schools shall be granted permanent certificates under the same Regulations as govern the High Schools. Experience gained in a Continuation School shall not be counted as Public School experience.

9. The class-room accommodations of the Continuation School shall be separate from the Public School, but the building need not be separate.

10. The special equipment shall be of the following minimum values:—

	One or two teachers.	More than two.
Library	\$150 00	\$300 00
Scientific apparatus	150 00	300 00
Maps, Charts, and Tellurian	25 00	50 00
Drawing Models (including casts), and Art supplies	25 00	50 00

II. *Apportionment of the Legislative Grant.*

11. (1) Continuation Schools in rural Public and Separate Schools shall not share in the General or the Special Legislative Grants to such Public and Separate Schools.

(2) After 1908 Continuation Schools in urban municipalities shall not share in the General or the Special Legislative Grants to urban Public and Separate Schools.

12. The Legislative Grant to Continuation Schools shall be apportioned on the following bases:—

(1) *Fixed Grants.*

(a) \$100, when at least the equivalent of the time of one teacher, but less than the time of two teachers, is given the work of the Continuation School.

(b) \$200, when at least the time of two teachers is given, but less than the time of three teachers.

(c) \$300, when at least the time of three teachers is given.

(2) *On Salaries.*

(a) In the case of (a) above, twenty-five per cent. of the excess of the Principal's salary over \$400.00. Maximum Grant, \$150.

(b) In the case of (b) above, twenty-five per cent. of the excess of the two teachers' salaries over \$800. Maximum Grant, \$300.

(c) In the case of (c) above, twenty per cent. of the three teachers' salaries over \$1,500. Maximum Grant, \$350.

(3) *On the Value of the Special Equipment.*

10 per cent. of the approved value, the maximum value recognized being as follows:—

(a) Where there are one or two teachers: Library, \$300; Scientific apparatus, \$300; Maps, Charts, and Tellurian, \$50; Drawing Models (including casts) and Art supplies, \$50.

(b) Where there are three teachers:—Library, \$600; Scientific apparatus, \$600; Maps, Charts, and Tellurian, \$75; Drawing Models (including casts) and Art supplies, \$75.

(4) *On the Character of the Accommodations.*

School.	One Teacher.				Two Teachers.				Three Teachers.			
Grade.	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Water supply.....	1 00	75	50	25	1 50	1 15	75	40	2 00	1 50	1 00	....
Class rooms.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 50
Laboratory.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Blackboards.....	1 00	75	50	25	1 50	1 15	75	40	2 00	1 50	1 00	50
Cap rooms.....	1 00	75	50	25	1 50	1 15	75	40	2 00	1 50	1 00	50
Desks.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Laboratory tables..	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Lighting.....	1 00	75	50	25	1 50	1 15	75	40	2 00	1 50	1 00	50
Heating.....	1 00	75	50	25	1 50	1 15	75	40	2 00	1 50	1 00	50
Ventilation.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
	15 00	11 25	7 50	3 75	22 50	17 00	11 25	5 75	30 00	22 50	15 00	7 50

(5) *On the Grade of the Teacher's Certificate.*

13.—(a) \$20, where, in addition to a permanent Provincial First Class certificate, the teacher holds a Degree in Arts from a British University.

(b) \$40, where, in addition to a permanent Provincial First Class certificate, the teacher holds the academic qualification of a High School specialist or a Degree in Arts from a British University with at least Second Class Honours (67 per cent.) in a department recognized by the Minister of Education.

(c) When the teacher has taught with the certificate specified in (a) or (b) above during the preceding year for less than the year but for at least a term, half of the above grant shall be paid in each case.

(d) The status and the competency of the teacher shall in each case be attested by the Inspector of Continuation Schools.

SPECIAL REGULATIONS FOR FIFTH CLASSES.

I. Minimum Requirements.

14. A Fifth Form which complies with the following conditions shall be entitled to a share of the Legislative Grant to Continuation Schools and Fifth Classes in accordance with the following regulations:

(1) The Fifth Class shall be situated in a municipality or school section in which there is no High School.

(2) (a) The course of study shall be that prescribed for the Fifth Form of the Public Schools, of which the following subjects are obligatory:

Reading, Literature, Grammar, Composition, History, Geography, Writing, Arithmetic and Mensuration, Art, and Elementary Science.

Note.—No class text-books are to be used by the pupils in either Art work or Elementary Science. A manual will be issued by the Department of Education to direct and assist the teacher in dealing with these subjects. Suitable reference books should be provided in the library for the pupils.

(b) From the other subjects of the Fifth Form and the subjects of the High School Middle School, the Board of Trustees may select, with the concurrence of the Inspector of Continuation Schools, on the recommendation of the Public or Separate School Inspector, as the case may be, such subjects or such parts of the courses therein as may, in its judgment, suit the requirements of the locality. (See Regulation 18 of 1904).

Note 1.—Notice of the proposed Middle School course shall be sent by the Principal to the Inspector of Public or Separate Schools concerned, before the classes in such work are organized, with particulars as to the special equipment, and the special qualifications of the teacher for such work, and also of the said Middle School work proposed and the provision therefor in the time-table of the school.

Note 2.—Fifth Classes which take up Middle School work will be inspected by the Inspector of Continuation Schools. No Legislative Grant will be paid unless the provision for Forms I.-V. of the Public School course as well as for the Middle School Classes is satisfactory. *Schools shall not be allowed to take up work for which the provision is inadequate or to sacrifice the interests of the regular classes of the Public School.*

(3) At least an average daily attendance of two pupils who have been admitted in accordance with the provisions for admission to the High Schools.

Note—As provided by *The Public Schools Act* (section 8 (3) above), such other pupils may be admitted to the class as, on the recommendation of the Principal, are considered qualified by the Inspector, but their attendance shall not be counted in making up the prescribed average. Under this arrangement, such pupils may attend all or some of the classes for a few months in the winter.

(4) A teacher with at least a permanent Provincial Second Class certificate.

(5) Special equipment of at least the following minimum values:

Library, \$50; Scientific Apparatus, \$50; Maps and Charts, \$15; Drawing Models and Art supplies, \$15.

II. *Apportionment of the Legislative Grant.*

15. In addition to the General and the Special Legislative Grants to Public Schools, Rural and Urban Fifth Classes which comply with the foregoing minimum conditions shall receive their share of the Legislative Grant to Continuation Schools and Fifth Classes, apportioned on the following bases:

(1) *Fixed Grants.*

(a) A fixed grant of \$20 where there is a staff of at least two teachers, the principal giving instruction to not more than the pupils of the fourth and higher classes;

(b) A fixed grant of \$15 where there is a staff of at least two teachers, the principal giving instruction to not more than the pupils of the third, fourth and higher classes; and

(c) A fixed grant of \$10 in the case of other fifth classes which have complied with the minimum requirements set forth in Regulation 14 above.

(2) *On the Value of the Special Equipment.*

10 per cent. on the approved value, the maximum value recognized being as follows:

Library, \$200; Scientific Apparatus, \$200; Maps, Charts, and Tellurian, \$50; Drawing Models and Art supplies, \$50.

Note.—In the case of a Fifth Class which has been in successful operation under the present regulations, but which, owing to unavoidable causes, the Board of Trustees has been unable to maintain in any one year, the percentage on the value of the equipment may be paid by the Minister, on the recommendation of the Inspector concerned.

(3) *On Salaries.*

(a) When the principal gives instruction to not more than the pupils of the Fourth Form and higher classes, the Legislative Grant on Teachers' Salaries shall be apportioned on the following bases:

For Rural Schools.

10 per cent. of the excess of the principal's salary over \$300 in addition to the 40 per cent. from the general and special Legislative Grants to rural Public and Separate Schools. Maximum Grant, \$30.

For Urban Schools.

30 per cent. of the excess of the principal's salary over \$400 in addition to the 40 per cent. from the general and special Legislative Grants to rural Public and Separate Schools. Maximum Grant, \$60.

For Urban and Rural Schools.

30 per cent. of the excess of the principal's salary over \$600. Maximum Grant, \$120.

(b) In the case of other fifth classes, the Legislative Grant on Teachers' Salaries shall be apportioned on the following bases:

For Rural Schools.

5 per cent. of the excess of the teacher's salary over \$300 in addition to the 40 per cent. from the general and special Legislative Grants to rural Public and Separate Schools. Maximum Grant, \$15.

For Urban Schools.

25 per cent. of the excess of the teacher's salary over \$400. Maximum Grant, \$50.

Note.—The Grants on salaries provided under Regulation 15 (3), (b) preceding are less than those provided under Regulation 15 (3) (a) preceding, because in the former case there may be only one teacher and the amount of time to be given to the fifth class work is less than half.

For Urban and Rural Schools.

30 per cent. of the excess of the teacher's salary over \$600. Maximum grant \$60.

(4) *On the Grade of the Teachers' Certificates.*

In addition to the Legislative apportionment to rural and urban Public and Separate schools on the grade of the teacher's certificate and the length of his successful experience, the following additional sums shall be paid:

(a) \$20 in the case of a teacher who, in addition to at least a permanent Provincial Second Class certificate, holds a Degree in Arts from a British University.

(b) \$40 in the case of a teacher who, in addition to at least a permanent Provincial Second Class certificate, holds the academic qualifications of a High School specialist or a Degree in Arts from a British University, with at least second class honours (67 per cent.) in a department recognized by the Minister of Education.

(c) When the teacher has taught during the preceding year with the certificate specified in (a) or (b) above for less than the year but for at least a term, half of the above grant shall be paid in each case.

(d) The status and the competency of the teacher shall in each case be attested by the Inspector of Continuation, Public, or Separate Schools as the case may be.

THE DISTRICTS.

GENERAL REGULATIONS FOR BOTH CONTINUATION SCHOOLS AND FIFTH CLASSES.

18. The yearly apportionment by the Minister of Education of the Legislative Grant to each Continuation School and Fifth Class in the Districts shall be twice the total of the sums apportioned on the different bases set forth above in the case of each grade in the organized counties.

Note.—No county equivalent is available in the districts.



Minimum Equipment for Fifth Classes.

LIBRARY. (Minimum Value, \$50.00).

I. *For Reference:*

Concise Imperial Dictionary (Half Morocco).....	\$1.50
Chambers' Biographical Dictionary.....	3.50
Nature's Garden. Blanchan	2.00
Botany (12th Edition, 1907). Bailey.....	1.10
Our Native Trees. Keeler.....	2.00
First Book of Forestry. Roth.....	.75
Soil. King	1.25
Public School Agriculture .....	.30
Animal Life. Jordan and Kellogg	1.25
Insect Life. Comstock.....	1.50
The Birds of Village and Field. Merriam	2.00
Birds of Ontario. Nash. (Issued by Ontario Department of Agriculture, Toronto.)	
Art Education ; for High Schools. The Prang Educational Company	

II. *For General Reading:*

Life of King Alfred. Besant	1.25
Sir Walter Raleigh. (Builders of Greater Britain. Wilson)	1.50
Champlain. Dix	1.00
Oliver Cromwell. (Historical Biographies. Creighton) ..	1.00
James Watt. Carnegie.....	.50
Abraham Lincoln. Brooks	1.00
Livingstone. (English Men of Action) .....	.75
Heroes of the Crusades. Douglas	1.50
Heroes of Canada. Marquis	1.00
Noble Women. Adams .....	.75
Tales of Chivalry. Rolfe .....	.50
Stories of the Days of King Arthur. Hanson .....	.90
A Little Book of Profitable Tales. Field.....	1.25
Pathfinders of the West. Laut.....	2.00
Stories of Discovery. Hale.....	1.25
North Overland with Franklin. Oxley.....	1.00
Old Indian Legends. Zitkala-Sa .....	.50
The Jungle Book. Kipling	1.50
The Red True Story Book. Lang.....	.45
The Sea and Its Wonders. Kirby	1.00
Following the Deer. Long.....	1.25
Camp Life in the Woods. Gibson.....	1.00

III. *For Special and Supplementary Reading* :\$10.00

- (a) Shakespeare :—(1) Merchant of Venice; (2) Julius Cæsar; (3) As You Like It; (4) Macbeth; (5) Richard II; (6) Henry V; (7) Cæsar.
- (b) Narrative Poetry :—(1) The Ancient Mariner. Coleridge. (2) Lay of the Last Minstrel. Scott. (3) Lays of Ancient Rome. Macaulay. (4) Tales of a Wayside Inn (Selections). Longfellow. (5) Snowbound. Whittier. (6) The Earthly Paradise (Stories and Legends). Morris.
- (c) Prose Fiction :—(1) Silas Marner. Eliot. (2) Ivanhoe. Scott. (3) Treasure Island. Stevenson. (4) Tale of Two Cities. Dickens. (5) The White Company. Doyle. (6) Burning of Rome. Church.
- (d) Miscellaneous :—(1) Wake Robin. Burroughs. (2) Sketch Book (Selections). Irving. (3) Twice Told Tales (Selections). Hawthorne. (4) Greek Heroes. Kingsley. (5) Warren Hastings. Macaulay. (6) Captains of Industry. Parton.

NOTE :—In each year the pupils should read, partly at home or during study periods and partly in class, three or four books specially prescribed by the Principal or the Inspector. If possible each pupil should be supplied with a separate copy of each book so selected. An allowance of ten dollars will meet the cost of such reading for the average Fifth Class. The books should be arranged under different headings, providing a suitable literary range, such as narrative Poetry, Drama, History and Biography, Prose Fiction, Travels, Essays, Popular Science, Miscellaneous, etc.

The books specified in the foregoing lists are suggested simply for the convenience of Inspectors, Principals and School Boards. Other lists more suitable to the conditions of individual schools and classes may be selected by these authorities from the authorized School Library Catalogues issued by the Education Department. In all cases special attention should be paid to quality of paper and type.

Teachers may obtain free of cost for their schools the bulletins of the Dominion Government on Forestry by applying to the Forestry Branch, Department of Interior, Ottawa; and of the Ontario Agricultural College, Guelph, by applying to the Department of Agriculture, Toronto.

DRAWING AND ART SUPPLIES. (Minimum value, \$15.00.)

- I. About a dozen of the standard models, of good size, including such forms as sphere, half sphere, cylinder, cube, cone, frustum, prism, pyramid, flight of three steps, vases, etc.
- II. Sheets of drawing paper, 9 in. x 12 in., suitable for work with pencil, brush, or pen : \$2.50 to \$3.00 per 1,000 sheets.
- III. A box of water colors for each pupil, including the three standard colors,—yellow, red, blue,—and a tube each of Chinese white and sepia, also at least two brushes for each box, costing about 50c per box for good material.

NOTE.—Total supplies for average Fifth Class need not exceed \$15.00 for excellent quality of material, and only such quality will meet the requirements of the prescribed course.

MAPS, CHARTS, ETC. (Minimum value, \$15.00.)

- Map of Roman Empire. Kiepert. (75 in. x 57 in.) \$6.40
 Map of Roman Empire. W. & A. K. Johnston. (51 in. x 43 in.) 3.50

Map of Ancient Italy. W. & A. K. Johnston	3.50
Map of Ancient Greece. " "	3.50
Physical Map of the World. " "	3.50
Botany Charts. (Set of four). " " (34 in. x 28 in.)	6.75
Birds of Canada in Relation to Agriculture. Humberstone.....	3.00
Natural History Charts. Wheeler. Four charts each.	4.50
(1) Mammalia. (2) Birds. (3) Reptiles, Amphibians and Fishes. (4) Invertebrate Animals.	
Lang's Planetarium	15.00

LIST OF APPARATUS.

1 Metric Scale, one foot long. The ordinary school rulers graduated in inches, and centimeters will answer.....	.05
1 Meter Stick.....	.50
1 Pinch-cock .....	.15
1 Burette, Mohr's, 50 C. C. graduated in tenths	1.50
1 Measuring Cylinder, 100 C. C. graduated .....	.80
3 Beakers, different sizes.....	.55
1 Air Pump and Receiver.....	15.00
1 Physical Balance, with set of Metric Weights.....	10.00
2 Spirit Lamps or Bunsen Burners.....	.80
1 Spring Balance.....	.80
1 Glass Battery Jar, 9 in. deep, 8 in. diameter .....	.50
1 Mortar and Pestle.....	.35
2 Thistle Tubes, each 15.....	.30
1 Barometer Tube, heavy glass.....	.50
1 Boyle's Law Tube.....	1.00
1 Filter Funnel .....	.10
1 Retort Stand, (two rings).....	.50
3 Florence Flasks with perforated rubber corks to fit .....	.75
1 Florence Flask with wide mouth .....	.25
1 Rubber Cork with two holes to fit Florence Flask with large mouth .....	.15
1 Hydrometer Jar.....	.45
1 Tuning Fork.....	1.25
1 Deflagating Spoon.....	.15
1 Evaporating Dish.....	.25
1 Glass Tube about 2 cm. in diam. and 30 cm. long .....	.15
1 Glass Tube about 3 cm. in diam. and 50 cm. long .....	.30
1 Spool Piano Wire.....	.10
2 Thermometers, graduated in both Centigrade and Fahrenheit Degrees	1.50
1 Plane Mirror, (small) .....	.25
1 Convex Lens, (Reading Glass will answer).....	.25
2 Triangular Glass Prisms	1.00
Pieces of Red, Green, and Blue Glass.....	.10
Lodestone, (small piece).....	.50
2 Bar Magnets.....	.50
1 Compass.....	.25
1 Bar Soft Iron, round, 6 in. long.....	.20
Sheet Zinc and Sheet Copper, (pair elements).....	.15
2 Dry Cells, (each 50c.).....	1.00
1 Spool Double-Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc .....	.30

1 Pneumatic Trough.....	.40
6 Clear Glass Bottles.....	.30
4 Glass Slips, 2 inches square to cover mouth of bottles.....	.05
3 Soup Plates.....	.20
3 Hard Glass Test Tubes.....	.30
4 Reagent Bottles, 4 oz.....	.50
1 doz. Test Tubes, 5 in. x $\frac{3}{4}$ in, per doz.....	.25
2 doz. Test Tubes, 4 in. x $\frac{1}{2}$ in, per doz.....	.30
1 lb. Glass Tubing, (soft) $\frac{1}{8}$ in. to $\frac{1}{4}$ in.....	.60
1 Retort, stoppered, 4 oz.....	.25
1 Lamp Chimney, (large).....	.10
2 yards Rubber Tubing, 3/16 in. inside, red.....	.60
Pieces of Mica.....	.10
1 Package of Picture Wire.....	.10
2 Files, one round, one triangular.....	.15
2 doz. Corks, assorted.....	.10
1 Package Filtering Paper, circles, 6 in.....	.25
Candles.....	.10
$\frac{1}{2}$ doz. Sheets Litmus Paper.....	.30
1 square foot Sheet Rubber, per square foot.....	.25
Wire Gauze.....	.15
1 Concave Lens.....	.20
1 piece Plate Glass for proving laws of refraction.....	.30
1 Round-bottomed Flask.....	.30
Sealing Wax, large stick.....	.25
1 Small Vise for clamping wires.....	.40

 \$50.00

CHEMICALS.

The following chemicals are also requisite. They will cost about \$6.

Zinc, granulated, 1 lb.

Copper Clippings, sheet or wire, 1 lb.

Iron Filings, 1 lb.

Charcoal.

Coal, (pieces of hard and soft).

Mercury, 2 lbs.

Sodium, 1 oz.

Potassium, 2 drams.

Oxide of Mercury, red, 1 oz.

Oxide of Copper, 1 oz.

Manganese Dioxide, $\frac{1}{2}$ lb.

Calcic Oxide, (lime, lumps).

Sodic Hydroxide, $\frac{1}{4}$ lb.

Potassic Chlorate, 1 lb.

Potassic Nitrate, 4 oz.

Potassic Permanganate, 2 oz.

Calcic Chloride, (lumps).

Ammonia Solution, 8 oz.

Ammonia Nitrate, 4 oz.

Ammonia Chloride, 6 oz.

Calcic Carbonate, lumps of limestone, calcite, chalk, animal shells.

Carbon, specimens of coal, charcoal, graphite, lampblack.

Sulphuric Acid, 1 lb.
Nitric Acid, 1 lb.
Hydrochloric Acid, 8 oz.
Yellow Phosphorous, 1 oz.
Magnesium Wire.
Silver Nitrate.

NOTE:—The foregoing is suggested as a suitable list from which to select the minimum equipment, but School Boards are not restricted to this list. The biological charts should be used only as *auxiliary* in the practical and objective treatment of the prescribed course in plant and animal study.

CORRESPONDENCE WITH THE EDUCATION DEPARTMENT.

With a view to secure promptitude and despatch in matters coming within the functions of the Education Department, the following general instructions should be observed :

1. All communications should be addressed to the Deputy-Minister and not to any of the clerks or to the High School Inspectors, the Principals of the School of Pedagogy or Normal Schools or to members of Boards of Examiners.

2. Enquiries regarding different matters which may require to be dealt with by different officers should not be written on the same sheet though they may be forwarded under the same cover.

3. Some length of time will necessarily elapse before a reply can be given to communications that require to be referred for a report to Inspectors, Principals or Examiners.

4 Much inconvenience will be avoided if the official reports from School Boards, Municipal Clerks, Inspectors and Principals are forwarded to the Department as soon as due.

EDUCATION DEPARTMENT, TORONTO,
November, 1894.



To Public School Inspectors.

From information I have received, some misapprehension seems to prevail in regard to the provisions for the improvement of school accommodations as detailed in Circular 33; some trustees, for example, apparently regarding them as imperative. It cannot be too generally understood that, while the details provide the bases for the Inspector's grading, he is directed in the same circular "to use his judgment in securing them, having due regard to *the interests of Education, the capabilities of the present premises, and the financial competency of the Boards.*" At a time when the Department is requiring a minimum equipment, and, in some cases, a considerable increase of the teachers' salaries, the Inspector, I venture to suggest, cannot be too careful in enforcing his suggestions. Not all the desirable and practicable improvements can be secured in a short time. In many cases it will take years before the condition of the schools will become satisfactory, and at first the Inspector should secure the changes that are of prime importance. The key to the situation is judicious persistence.

The form of Inspector's Report, which is now being distributed, should be used with such additions (printed or written) as you may consider desirable. In the blank spaces under each head you will make your criticisms and recommendations. It is, however, important that, when practicable, these should also be discussed orally with at least one of the trustees. By using carbon paper you may make two copies of a report at the same time, one for the trustees' and one for your own use. As is shewn by the new form, four grades of accommodation are now provided for instead of the three of Circular 33, the differentiation of the grades being left to the Inspector's judgment. It is, of course, important that the same standard should be maintained in each inspectorate.

It has been brought to my notice that some trustees, through fear of losing the Government grant, have been induced by canvassing agents to purchase at exorbitant prices, supplies far in excess of what is required. Inspectors are, therefore, requested to take whatever steps they may think necessary to protect the interests of the schools under their supervision, and, if, in any case, an injustice has been done which demands an investigation, to report the facts in full to the Department.

As far as possible, Inspectors should also see that no favoritism is shown to any firm furnishing school supplies, but that free and fair competition is allowed to all in order that trustees may have the full benefit thereof both as to prices and to quality of materials offered. In this connection attention is called to the general prohibitions contained in section 121, chap. 39, 1 Edw. VII., which apply to all school officials.

While it is perhaps unavoidable that the cost of furnishing the prescribed "minimum equipment" will sometimes appear to be considerable, yet it is expected that inspectors will use their discretion in allowing at least for a time the use of such articles now found in the schools as may fairly meet the requirements, and in this way prevent unnecessary difficulties in the introduction of the new system for distributing the grants to rural schools.

The equipment over the minimum should include additions to the supply of maps, charts, globes, and other apparatus (including apparatus for teaching science), and especially of books for the pupils' use (reference and supplementary).

In Circular 33, you are directed when you are satisfied that a Board is too poor to comply with the requirements, to extend at your discretion the time for providing the equipment to the Summer of 1908. Under present conditions, especially in view of the misunderstandings that have arisen in connection with the educational reforms introduced during the present year, it will be well for you to construe the foregoing provision with judicious liberality. Boards should be required to provide the articles prescribed in the order of their importance.

I had intended, as is also stated in Circular 33, to settle before the close of the year, the details of the distribution of the legislative and county grants, in a circular referred to in the Public School Inspector's form of report as "Instructions No. 12;" but the amounts available for the purpose in 1907 have not yet been settled by the Legislature, and I have accordingly decided to defer the final settlement of this matter until some time this half-year. In the meantime, the official form of report, if filled up as prescribed, will provide all the statistics needed for the scheme when finally settled. I may remind you, however, that this scheme will be a modified form of that which has proved so successful in the case of the High Schools.

R. A. PYNE,

Minister of Education.

EDUCATION DEPARTMENT,

Jan., 1907.



AGRICULTURAL DEPARTMENTS IN HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

The following courses in Agriculture and the list of apparatus are being considered by the Education Department. In addition to such courses, pupils in the special Agricultural departments will take the subjects that are obligatory on all pupils, with such modifications as may be deemed expedient by the Principal and approved by the Education Department.

Part of the proposed scheme also is that the teacher of Agriculture would take classes in his department in the school, of pupils from the surrounding country, the members of which might not be in regular attendance in the other High School classes; and that, if practicable, he would hold special classes at suitable times in other parts of the county. In addition this teacher would act in the neighborhood as a special agent of the Agricultural College.

I. ACCOMMODATIONS REQUIRED.

A laboratory, school gardens, arboretum, experimental plots.

II. COURSES OF STUDY.

FIRST YEAR.

AGRICULTURAL PHYSICS: To keep records of the weather in standard book supplied by O.A.C. Physics Department, of accidents from lightning; of average temperatures, rainfall, etc., and to report monthly on same to the O.A.C.

Examination and classification of soils; laboratory exercises on elementary physical analyses of school garden or home garden soils; local excursions for the collecting and studying of soils. Pupils should be able to recognize, name and describe the different kinds of soils of the neighborhood.

Laboratory exercises to estimate the water capacity of different soils; to demonstrate capillary force; to show how soil water is conserved and the necessity for conservation; drainage.

CHEMISTRY: Oxygen, hydrogen, nitrogen, carbon; air, water, ammonia, carbon dioxide—a practical course.

AGRICULTURAL BOTANY: Weeds and weed seeds: seed testing for purity according to the rules of the Seed Control Act of 1905. Experiments to show the relations of the plant to the soil, light, air, temperature and moisture.

Study of tree growth.

Plant families of chief economic importance.

HORTICULTURE: Selecting and storing flower and vegetable seeds for next year. Methods of gathering, grading, packing, storing, shipping of fruits; visits to orchards, cold storage plants, canning factories, markets, fruit shows. Treatment of fruit-plantations, pruning, spraying, cover-crops.

Propagation by seeds, budding, grafting, layering, cuttings. In the spring, making and keeping of a garden with plots for carrying on some of the experiments of the Experimental Union—such as testing varieties of fruits and vegetables.

Constructing and caring for a hotbed:

FIELD HUSBANDRY: Experimental plots in the school farm in accordance with Experimental Union; one on cereals, one on fodders, one on root crops.

Germination tests of the selected seeds of common farm plants.

Seed judging; changing seed; quantity of seed per acre.

ANIMAL HUSBANDRY: Visits to local stock farms, to learn best methods of housing, feeding and handling farm animals.

Visits to fairs or stock-sales to become acquainted with different breeds.

Judging of types of farm animals; beef and dairy cattle, light and draft horses, bacon hogs, short and long wool sheep.

DAIRY HUSBANDRY: Visits to local cheese factories and creameries to learn, in general, the factory methods of caring for milk, utensils and finished products.

Dairy stables: lighting, cleaning, ventilating.

Individual cow testing: this is to be carried on by some of the students at home.

POULTRY: Visits to poultry plants, shows, markets. Planning and building poultry houses.

Leading breeds; care and feeding of fowl.

FARM CARPENTRY: A modification of the ordinary Manual Training course to suit farm boys.

How to use, sharpen, care for such tools as a farmer's kit should contain.

Models of joints, splices necessary in making farm buildings or appliances.

FARM ARITHMETIC AND BOOKKEEPING, ETC.: Practical measurements of land surfaces, wood, stone, walls, tanks, bins, mows, lumber.

Cost of fencing, buildings, silos, feeds.

Study of market reporting in daily papers, local and foreign.

Assessment rolls and methods of fixing tax rate.

Keeping farm accounts of each field.

SECOND YEAR.

AGRICULTURAL PHYSICS: Soils: Work of first year continued.

Methods of tillage; underdrainage and taking of levels.

Mechanics: Principles of farm machinery; pumps, levers, pulleys, engines.

Principles of ventilation, lighting, draining.

CHEMISTRY: Soils, fertilizers, foods.

AGRICULTURAL BOTANY: Work of first year continued.

Farm crops: Study and classification of leading cereals, grasses, legumes; diseases and how to recognize and combat.

Forestry: Study of the common trees of the neighborhood; care of a small forest nursery in connection with the school farm; transplanting; reforestation of waste land.

Visits to local saw and planing mills; grades of lumber and prices.

HORTICULTURE: Work of first year continued.

Plant Diseases: Common vegetable and fruit diseases; spraying and fungicides; practice in orchards of neighborhood.

Economic Insects: Study of injurious and beneficial species; insecticides and their application.

Garden Work: Experiments in conjunction with the Experimental Union.

Plant breeding and selection.

FIELD HUSBANDRY AND FARM MANAGEMENT: Systems of rotation; laying out of a farm; mixed farming; special farming; intensive farming; cost of farming operations.

Improvements of soils by fertilizers, manures and clovers demonstrated in experimental plots on the school farm.

Seed selection: Experiments on school plots to show its value.

Plant breeding: Experiments on hybridization on school plots or at home.

ANIMAL HUSBANDRY: Work of first year continued.

Feeds and feeding; rations.

Care of animals in sickness.

Animal physiology.

DAIRY HUSBANDRY: Care and feeding of cows; rearing calves.

Chemistry of milk; elementary bacteriological studies of milk.

Milk testing; Babcock testers.

Management of hand separators, barrel churns, butter worker, butter printer.

POULTRY: Care and feeding; treatment of common diseases; elementary laboratory study of the embryology of a chick; incubation.

Individual hen records by means of trap nests.

MANUAL TRAINING: Farm blacksmithing; use and care of iron-working tools; exercises in repairing farm machinery; exercises in making such articles as rings, chain links, harrow teeth, cold chisels; welding and tempering.

FARM ECONOMICS: The Agricultural and Arts Act; co-operative associations; commercial law relating to farmers; municipal organizations; farms and contracts.

EQUIPMENT FOR AGRICULTURAL DEPARTMENT IN ONTARIO HIGH SCHOOLS.

NOTE.—It is not intended that the equipment listed below is to be immediately supplied, but, in the development of the work, this list may be used as a guide in the purchasing of the school's needs.

In many cases manufacturers will be found willing to put in equipment for demonstration purposes. In other cases, friends of the school will loan equipment. In any case expensive apparatus should not be bought before there is a certainty of a necessity for it.

The High School, in most cases, will be supplied already with a considerable part of this equipment. Where Manual Training work is organized, there will be no need for any new equipment of tools.

GENERAL REQUIREMENTS.

(1) A cabinet, made on some unit system, with drawers or sections suited to holding herbarium mounts, bird skins, geological specimens, mineralogical specimens, fungous diseases, etc., etc.

(2) A large table with drawer and cupboard facilities, suitable for demonstrating experiments. The projecting top should be heavy and finished to withstand water and chemicals. Where water, gas and electricity are available, these should be put in.

ESTIMATE OF COST OF EQUIPMENT.

NOTE.—It is not intended that every school should have all this equipment; local conditions will determine the extent of such.

General:

Land—amount to be determined by local conditions (one acre might be ample)	
Office fittings	
Laboratory tables, etc.	\$100 00
Collection cabinets, to commence with	50 00
Library	

Agricultural Physics:

For Drainage work	57 45
For Weather work	32 75
For Soil work	16 00
For Mechanics	18 00

Chemistry: Same equipment as used in High Schools.

<i>Farm and Garden Work</i>	80 00
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Farm Carpentry and Blacksmithing:

For Farm Metal Work	87 26
For Farm Carpentry Work	42 00

<i>Poultry</i>	40 00
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<i>Dairy Husbandry</i>	100 00
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<i>Entomology</i>	20 00
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<i>Botany</i>	60 00
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\$702 46

PHYSICAL EQUIPMENT.

(Numbers refer to catalogue listing.)

For Drainage Work.

1 Architect's Dumpy Level, for survey work, complete	\$35 00
(5017) (Keuffel & Esser, New York).	
1 Levelling Rod (6252)	12 00
1 Surveyor's Chain, 66 feet (7786 D)	3 20

or

1	Surveyor's Chain, 100 feet (7786 B).....	3 50
1	Home-made Drainage Level (to be made by teacher) Level, \$1.25; Wood, 50c.)	1 75
2	Sets Arrows (7811) (\$1 a set)	2 00
		<hr/>
		\$57 45

For Weather Work.

	Box, to be made at school (blueprint showing design may be had at the O.A.C.)	\$5 00
1	Standard Rain Gauge (330) (Henry J. Green, Brooklyn, N.Y.)	5 25
1	Maximum Thermometer (34) (Negretti & Zambra, Holborn Viaduct, London, England)	5 25
1	Minimum Thermometer (36) (Negretti & Zambra)	5 25
1	Aneroid Barometer (Special 58) (Henry J. Green), to be pro- vided without symbols "stormy," etc., and adjustable ring.	12 00
		<hr/>
		\$32 75

For Soil Work.

2	dozen Zinc Tubes, with gauze diaphragm 1 inch from bottom, for determining water capacity of soil, $7\frac{1}{2}$ inch by $1\frac{1}{2}$ inch.	\$3 50
2	dozen Trays for setting above tubes into, $3\frac{1}{2}$ x $2\frac{1}{2}$ in. x $1\frac{1}{2}$ in. deep	2 00
12	Long Glass Tubes (1 inch diameter, 4 feet long)	7 80
1	Rack and Tray for above	1 50
12	Zinc Trays, 7 x 7 in. x 1 in. deep, for showing optimum water content for tillage and spatulas	1 20
		<hr/>
		\$16 00

AGRICULTURAL PHYSICS.

For Mechanics.

3	Levers, to illustrate principles of levers	\$1 50
	Set of Weights for use with above, to be fitted with hooks for at- tachment to levers or pulleys; 6 of each, $\frac{1}{2}$ oz., 1 oz., 2 oz., 4 oz., 8 oz., 1 lb., 2 lb., 3 lb., 5 lb. (Eimer & Amend)	7 50
	Set of Pulleys, such as used at O.A.C., Guelph (H. A. Clemens Co, Guelph)	7 50
	Model of ordinary pump	75
	Model of pressure pump	75
		<hr/>
		\$18 00

For Farm and Garden Work.

1	Small Scales, weighing $\frac{1}{2}$ oz. up to 240 lbs.	\$9 00
1	Truck Scale	
1	Grain Tester, gallon (W. & J. G. Greey, Toronto)	20 00
1	Set Grain Measures, $\frac{1}{2}$ bushel, 1 peck, 1 gal., 1 qt., 1 pt.	2 50
1	doz. Germinating Boxes, to be made by students, standard size used at O.A.C., suitable for 100 seeds	1 50
1	doz. Zurich Germinators	60
2	doz. Plates for seed testing	1 20
1	Set of Sieves (15) perforated zinc, as per standard at O.A.C.	3 75

1 Air-tight Box, for killing pea-weevils, grain insects, to be made at school	50
1 5-gal. Crock for treating wheat, oats, etc., for smut	50
Collection of grains, vegetables, tree seeds, weed seeds, etc., to be made at school	
1 Dominion Government Seed Collection	2 00
1 Hand Seed Drill (Planet Junior or New Model)	7 00
1 Hand Wheel Hoe (Planet Junior or Iron Age)	7 00
Spades, Digging fork, Hoes (Draw or Dutch), Rakes (flat backed steel), Trowels, Hand weeders, Garden line and reel, Stakes and labels, Mallet	25 00
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	\$80 55

For Farm Metal Work.

1 Grindstone, 24 x 3 in. in iron frame	\$28 00
1 Anvil, 100 lbs. (Peter Wright)	11 00
1 Small Portable Forge	8 50
1 Ballpein Hammer, $1\frac{1}{2}$ lbs.	85
1 Ballpein Hammer, $1\frac{1}{4}$ lbs.	75
1 pair Flat Tongs	70
1 pair Forging Tongs	80
1 pair Belt Tongs	75
1 pair Gad Tongs	65
1 pair Pick-up Tongs	70
1 Hot Set	65
1 Cold Set	65
1 Hardy	48
1 Swage, top and bottom, $\frac{1}{4}$ inch and $\frac{1}{2}$ inch iron	65
1 Set Flatterers, 2 inch square	65
1 Top and Bottom Fuller, $\frac{1}{2}$ inch	65
1 Set Punches, $\frac{3}{8}$ inch and $\frac{1}{2}$ inch, round	50
1 Set Punches, $\frac{3}{8}$ inch and $\frac{1}{2}$ inch, square	50
1 Set Flat Chisels, $\frac{1}{2}$ in., $\frac{3}{4}$ in.	80
1 7-inch Beck Iron	1 25
1 Set Cold Chisels (1) flat (1) cape	1 00
1 Adjustable Hack Saw, and set of blades	2 00
1 Small Hand Drill	8 00
1 Set S. S. Drills for above, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ inch	1 00
1 Calipers, outside, 5 inch	55
1 Calipers, inside, 5 inch	55
1 Steel Blacksmith's Square for forge work	85
1 Machinist's Steel Rule	85
1 Rivetting Hammer	50
1 Soldering Iron and Solder	50
1 Set Files, 8 in. half-round bastard, 8 in. half-round smooth, 8 in. flat, 10 in. square bastard, 10 in. flat, 10 in. half-round.	85
1 Screw Plate (Diamond No. C)	4 00
1 Pair Cutting Pliers	88
1 Vise, 4-inch jaws	6 25

For Farm Carpentry.

Bench and Vise	\$10 00
Cutting Tools.—	
Saws :	
Rip Saw	1 40
Keyhole, Compass or Turning Saw	40
Back or Tenon Saw	1 25
Panel	1 00
Metal Saw	35
Chisels :	
$\frac{1}{4}$ in. Socket Mortice Chisel	25
$\frac{3}{8}$ in. Socket Mortice Chisel	30
$\frac{5}{8}$ in. Socket Mortice Chisel	35
$\frac{3}{4}$ in. Socket Mortice Chisel	40
$1\frac{1}{4}$ in. Socket Mortice Chisel	55
$\frac{3}{4}$ in. Bevelled-edge Firmer	28
Cold Chisel	5
Planes :	
Jack Plane	1 25
Block or Hand Plane	65
Spokeshave	30
Files :	
Saw, triangular or three-cornered file	10
10 in. half-round	30
8 in. Flat or Mill-saw File	15
$\frac{1}{4}$ in. Round or Rat-tail	15
Boring Tools :	
$\frac{1}{4}$ in. Augur Bit	15
$\frac{3}{8}$ in. Augur Bit	18
Gimlet Bit	8
Augur Bits, $\frac{1}{4}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{9}{16}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{7}{8}$ in., 1 in.	2 25
Drill	18
Shears :	
Tinman's Shears	1 00
Cutting Pliers	75
Scissors	5
Marking Tools :	
Tape Measure	2 25
Land Chain	3 30
Marking Gauge	15
Mortice Gauge	60
Scratch or Marking Awl	15
Compasses	40
Testing Tools :	
Try Square	35
Framing Square	1 25
Bevel	35
Level	75
Holding Tools :	
Iron Bench Vise	45
Ratchet Brace	1 50

Monkey-wrench	45
Small Screw-driver	20
Screw-driver or Turnscrew (large)	30
Screw-driver bit	10
Pliers	75
Driving Tools :	
Hammer (claw)	50
Rivetting Hammer	50
Mallet	35
Nail Set or Punch	15
Saw Set	50
Miscellaneous Tools :	
Oil-stone	40
Oil can	5
Putty Knife	15
Belt Punch	10
Glass Cutter	35
Sloyd Knife	35
Can-opener	10
Wad Punch	15

SINGLE BENCH TOOL KIT.

Summary:

Cutting Tools	\$15 05
Marking Tools	6 85
Testing Tools	2 70
Holding Tools	3 75
Driving Tools	2 00
Miscellaneous	1 65
Bench and Vise	10 00
Total Cost	\$42 00

For Dairy Work.

	Probable cost.	
1 Barrel or Box Churn, size to suit herd	\$3 50 to	\$7 00
1 Lever or Roller Worker	2 00 to	5 00
1 Butter Mould, size one to two pounds	45 to	3 00
1 Shipping Box, with icebox in centre and wooden trays	3 00 to	4 50
1 Thermometer (glass)	20 to	50
1 Salt Sieve (hair)	30 to	75
1 Pair Scales, to weigh quarter ounces	3 50 to	5 00
1 Buttermilk Strainer, size 2 to 4 quarts, with perforated tin bottom	25 to	50
1 Butter Ladle	20 to	40
1 Cream Pail (tin, with handles on sides and tin stirring spoon)	1 00 to	1 50
Creamer Cans and box for cold water (8 cows)	5 00 to	20 00
1 Cream Separator (10 or more cows).....	60 00 to	75 00
1 Brush for cleaning utensils	20 to	30
1 Supply of Washing Soda or Borax		
A Supply of good Butter Salt, per sack	70 to	1 60

Butter Color, if thought advisable to use it, per bottle or per gallon	25 and 3 50	
Parchment Butter Paper, per 1,000 sheets	1 00	
Babcock Milk Tester (8 bottles)	1 00	
Lactometer (Quevenne)	1 50	
1 Cow Testing Outfit, such as recommended in Bulletin 12, Dominion Department of Agriculture. There is a probability that the schools may be supplied with these free.		
1 Straightspring Scale (Fig. 1), capacity 40 lbs.	1 25	
1 Sample Bottle for each cow (Fig. 3), each	6 to	10
1 Sample Dipper (Fig. 4), each	10	
1 Box for holding samples (Fig. 5), each	75	
1 Package of 500 Preservative Tablets	75	
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	\$100 00	

For Work in Entomology.

(Much of this equipment can be prepared at school.)

Killing Bottles, Insect Boxes, Insect Nets, Insect Pins, Insect Spreading Boards, Breeding Cage, Insect Labels, Insect Larva Bottles, Cork	\$20 00
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For Poultry Work.

1 Incubator	\$30 00
1 Brooder	10 00
Models of trap nests, hen houses, etc., to be made by students.	

For Work in Botany.

1 Compound Microscope, 2 objectives	\$35 00
Plant Collecting Cans, Magnifying Glasses, Forceps, Razors, Needles, Glass Slides, Cover Glasses, Herbarium Mounts, Labels, Bell Jars, Beakers, etc.	25 00



EQUIPMENT FOR AGRICULTURAL DEPARTMENTS IN ONTARIO HIGH SCHOOLS.

It is not intended that the equipment listed below is to be supplied immediately, but, in the development of the work, this list may be used as a guide in making purchases to suit local needs.

In many cases manufacturers will be found willing to put in equipment for demonstration purposes. In other cases, friends of the school will loan or give equipment. In any case expensive apparatus should not be bought before there is a certainty of a necessity for it.

The High School, in most cases, will be supplied already with a considerable part of this equipment. Where Manual Training work is organized, there will probably be no need for any equipment of tools.

ESTIMATE OF COST OF EQUIPMENT.

GENERAL REQUIREMENTS.

(1) A cabinet, made on some unit system, with drawers or sections suited to holding herbarium mounts, bird skins, geological specimens, mineralogical specimens, fungous diseases, etc., etc.

(2) A large table with drawer and cupboard facilities, suitable for demonstrating experiments. The projecting top should be heavy and finished to withstand water and chemicals. Where water, gas and electricity are available, these should be put in.

AGRICULTURAL PHYSICS.

Drainage Work.

1 Architect's Dumpy Level, for survey work, complete	\$35 00
(5017) (Keuffel & Esser, New York).	
1 Levelling Rod (6252)	12 00
1 Surveyor's Chain, 66 feet (7786 D)	3 20
or	
1 Surveyor's Chain, 100 feet (7786 B)	3 50
1 Home-made Drainage Level (to be made by teacher) (Level, \$1.25; Wood, 50c.)	1 75
2 Sets Arrows (7811) (\$1 a set)	2 00
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	\$57 45

Weather Work.

Box, to be made at school (blueprint showing design may be had at the O.A.C.)	\$5 00
1 Standard Rain Gauge (330) (Henry J. Green, Brooklyn, N.Y.)	5 25
1 Maximum Thermometer (34) (Negretti & Zambra, Holborn Viaduct, London, England)	5 25
1 Minimum Thermometer (36) (Negretti & Zambra)	5 25
1 Aneroid Barometer (Special 58) (Henry J. Green), to be pro- vided without symbols "stormy," etc., and adjustable ring	12 00
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	\$32 75

Soil Work.

2 dozen Zinc Tubes, with gauze diaphragm 1 inch from bottom, for determining water capacity of soil, $7\frac{1}{2}$ in. by $1\frac{1}{2}$ in.	\$3 50
2 dozen Trays for setting above tubes into, $3\frac{1}{2}$ x $2\frac{1}{2}$ in. x $1\frac{1}{2}$ in. deep	2 00
12 Long Glass Tubes (1 inch diameter, 4 feet long)	7 80
1 Rack and 1 Tray for above	1 50
12 Zinc Trays, 7 x 7 in. x 1 in. deep, for showing optimum water content for tillage, and spatulas for mixing soils	1 20
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	\$10 00

Mechanics.

3 Levers, to illustrate principles of levers	\$1 50
Set of Weights for use with above, to be fitted with hooks for attachment to levers or pulleys; 6 of each, $\frac{1}{2}$ oz., 1 oz., 2 oz., 4 oz., 8 oz., 1 lb., 2 lb., 3 lb., 5 lb. (Eimer & Amend)	7 50
Set of Pulleys, such as used at O.A.C., Guelph (H. A. Clemens Co., Guelph)	7 50
Model of ordinary pump	75
Model of pressure pump	75
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	\$18 00

FARM AND GARDEN WORK.

Miscellaneous.

1 Small Scales, weighing $\frac{1}{2}$ oz. up to 240 lbs.	\$9 00
1 Truck Scale .....	.....
1 Grain Tester, gallon (W. & J. G. Greey, Toronto)	20 00
1 Set Grain Measures, $\frac{1}{2}$ bushel, 1 peck, 1 gal., 1 qt., 1 pt.	2 50
1 doz. Germinating Boxes, to be made by students, standard size used at O.A.C., suitable for 100 seeds	1 50
1 doz. Zurich Germinators	60
2 doz. Plates for seed testing	1 20
1 Set of Sieves (15) perforated zinc, as per standard at O.A.C.	3 75
1 Air-tight Box, for killing pea-weevils, grain insects, to be made at school	50
1 5-gal. Crock for treating wheat, oats, etc., for smut	50
Collection of grains, vegetables, tree seeds, weed seeds, etc., to be made at school .....	.....
1 Dominion Government Seed Collection	2 00
1 Hand Seed Drill (Planet Junior or New Model)	7 00
1 Hand Wheel Hoe (Planet Junior or Iron Age)	7 00
Spades, Digging fork, Hoes (Draw or Dutch), Rakes (flat backed steel), Trowels, Hand weeders, Garden line and reel, Stakes and labels, Mallet	25 00
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	\$80 55

FARM CARPENTRY AND BLACKSMITHING.

Farm Metal Work.

1 Grindstone, 24 x 3 in. in iron frame	\$28 00
1 Anvil, 100 lbs. (Peter Wright)	11 00
1 Small Portable Forge	8 50
1 Ballpein Hammer, 1½ lbs.	85
1 Ballpein Hammer, 1¼ lbs.	75
1 pair Flat Tongs	70
1 pair Forging Tongs	80
1 pair Belt Tongs	75
1 pair Gad Tongs	65
1 pair Pickup Tongs	70
1 Hot Set	65
1 Cold Set	65
1 Hardy	48
1 Swage, top and bottom, ¼ inch and ½ inch iron	65
1 Set Flatterers, 2 inch square	65
1 Top and Bottom Fuller, ½ inch	65
1 Set Punches, ⅜ inch and ½ inch, round	50
1 Set Punches, ⅜ inch and ½ inch, square	50
1 Set Flat Chisels, ½ in., ¾ in.	80
1 7-inch Beck Iron	1 25
1 Set Cold Chisels (1) flat (1) cape	1 00
1 Adjustable Hack Saw, and set of blades	2 00
1 Small Hand Drill	8 00
1 Set S. S. Drills for above, ⅛, ⅜, ½, ¾, 1, 1½, 2, 3, 4, 5, 6, 8, 10 inch	1 00
1 Calipers, outside, 5 inch	55
1 Calipers, inside, 5 inch	55
1 Steel Blacksmith's Square for forge work	85
1 Machinist's Steel Rule	85
1 Rivetting Hammer	50
1 Soldering Iron and Solder	50
1 Set Files, 8 in. half-round bastard, 8 in. half-round smooth, 8 in. flat, 10 in. square bastard, 10 in. flat, 10 in. half-round	85
1 Screw Plate (Diamond No. C)	4 00
1 Pair Cutting Pliers	88
1 Vise, 4-inch jaws	6 25

 \$87 26
Farm Carpentry.

Bench and Vise	\$10 00
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Cutting Tools.—

Saws :

Rip Saw	1 40
Keyhole, Compass or Turning Saw	40
Back or Tenon Saw	1 25
Panel	1 00
Metal Saw	35

 Total \$4 40

Chisels :

$\frac{1}{4}$ in. Socket Mortice Chisel	\$0 25
$\frac{3}{8}$ in. Socket Mortice Chisel	30
$\frac{5}{8}$ in. Socket Mortice Chisel	35
$\frac{3}{4}$ in. Socket Mortice Chisel	40
$1\frac{1}{4}$ in. Socket Mortice Chisel	55
$\frac{3}{4}$ in. Bevelled-edge Firmer	28
Cold Chisel	5
Total	\$2 18

Planes :

Jack Plane	\$1 25
Block or Hand Plane	65
Spokeshave	30
Total	\$2 20

Files :

Saw, triangular or three-cornered file	\$0 10
10 in. half-round	30
8 in. Flat or Mill-saw File	15
$\frac{1}{4}$ in. Round or Rat-tail	15
Total	\$0 70

Boring Tools :

$\frac{1}{4}$ in. Augur Bit	\$0 15
$\frac{3}{8}$ in. Augur Bit	18
Gimlet Bit	8
Augur Bits, $\frac{1}{4}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{9}{16}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{7}{8}$ in., 1 in.	2 25
Drill	18
Total	\$2 84

Shears :

Tinman's Shears	\$1 00
Cutting Pliers	75
Scissors	75
Total	\$2 50

Marking Tools.—

Tape Measure	\$2 25
Land Chain	3 30
Marking Gauge	15
Mortice Gauge	60
Scratch or Marking Awl	15
Compasses	40
Total	\$6 85

Testing Tools.—

Try Square	\$o 35
Framing Square	1 25
Bevel	35
Level	75
Total	\$2 70

Holding Tools.—

Iron Bench Vise	\$o 45
Ratchet Brace	1 50
Monkey-wrench	45
Small Screw-driver	20
Screw-driver or Turnscrew (large)	30
Screw-driver bit	10
Pliers	75
Total	\$3 75

Driving Tools.—

Hammer (claw)	\$o 50
Rivetting Hammer	50
Mallet	35
Nail Set or Punch	15
Saw Set	50
Total	\$2 00

Miscellaneous Tools.—

Oil-stone	\$o 40
Oil can	5
Putty Knife	15
Belt Punch	10
Glass Cutter	35
Sloyd Knife	35
Can-opener	10
Wad Punch	15
Total	\$1 65

Summary of Single Bench Tool Kit.

Cutting Tools	\$15 05
Marking Tools	6 85
Testing Tools	2 70
Holding Tools	3 75
Driving Tools	2 00
Miscellaneous	1 65
Bench and Vise	10 00
Total	\$42 00

DAIRY HUSBANDRY.

	Probable cost.	
1 Barrel or Box Churn, size to suit herd	\$3 50 to	\$7 00
1 Lever or Roller Worker	2 00 to	5 00
1 Butter Mould, size one to two pounds	45 to	3 00
1 Shipping Box, with icebox in centre and wooden trays	3 00 to	4 50
1 Thermometer (glass)	20 to	50
1 Salt Sieve (hair)	30 to	75
1 Pair Scales, to weigh quarter ounces	3 50 to	5 00
1 Buttermilk Strainer, size 2 to 4 quarts, with perforated tin bottom	25 to	50
1 Butter Ladle	20 to	40
1 Cream Pail (tin, with handles on sides and tin stirring spoon)	1 00 to	1 50
Creamer Cans and box for cold water (8 cows)	5 00 to	20 00
1 Cream Separator (10 or more cows)	60 00 to	75 00
1 Brush for cleaning utensils	20 to	30
A Supply of Washing Soda or Borax		
A Supply of good Butter Salt, per sack	70 to	1 60
Butter Color, if thought advisable to use it, per bottle or per gallon	35 and	3 50
Parchment Butter Paper, per 1,000 sheets	1 00	
Babcock Milk Tester (8 bottles)	1 00	
Lactometer (Quevenne)	1 50	
1 Cow Testing Outfit, such as recommended in Bulletin 12, Dominion Department of Agriculture. There is a probability that the schools may be supplied with these free.		
1 Straightspring Scale (Fig. 1), capacity 40 lbs.	1 25	
1 Sample Bottle for each cow (Fig. 3), each	6 to	10
1 Sample Dipper (Fig. 4), each	10	
1 Box for holding Samples (Fig. 5), each	75	
1 Package of 500 Preservative Tablets	75	

(About) \$100 00

ENTOMOLOGY.

(Much of this equipment can be prepared at school.)

Killing Bottles, Insect Boxes, Insect Nets, Insect Pins, Insect Spreading Boards, Breeding Cage, Insect Labels, Insect Larva Bottles, Cork	\$20 00
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POULTRY WORK.

1 Incubator	30 00
1 Brooder	10 00

Models of trap nests, hen houses, etc., to be made by students.

BOTANY.

1 Compound Microscope, 2 objectives	\$35 00
Plant Collecting Cans, Magnifying Glasses, Forceps, Razors, Needles, Glass Slides, Cover Glasses, Herbarium Mounts, Labels, Bell Jars, Beakers, etc.	25 00

SUMMARY.

General:

Land—amount to be determined by local conditions (one acre might be ample) .....	.....
Office fittings .....	.....
Laboratory tables, etc.	100 00
Collection cabinets, to commence with	50 00
Library .....	.....

Agricultural Physics:

Drainage work	57 45
Weather work	32 75
Soil work	16 00
Mechanics	18 00

Chemistry: Same equipment as used in High Schools.

<i>Farm and Garden Work</i>	\$80 55
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Farm Carpentry and Blacksmithing:

Miscellaneous
Farm Metal work	87 26
Farm Carpentry work	42 00
<i>Poultry</i>	40 00
<i>Dairy Husbandry</i>	100 00
<i>Entomology</i>	20 00
<i>Botany</i>	60 00

\$704 01



Regulations
and
Courses of Study
for the
Agricultural Departments
of the
High School at Essex, and the Collegiate
Institutes at Galt, Collingwood,
Lindsay, Perth, and
Morrisburg.

Session of 1908-1909.

WARWICK BRO'S & RUTTER, Limited, Printers
TORONTO

AGRICULTURAL DEPARTMENTS IN HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

REGULATIONS FOR SEPT., 1908, TO JULY, 1909.

ADMISSION REQUIREMENTS.

1. Pupils who take the regular two years' Special Course in Agriculture or a partial course therein in a High School, shall be admitted in accordance with the regulations that govern the admission of other High School pupils. For 1908 to 1909, however, other pupils may be admitted who, in the opinion of the Principal of the School and the Public School Inspector, are competent to take up the work. All such pupils shall be regarded as regularly enrolled.

2. To the courses held throughout the county, such persons may be admitted as, in the judgment of the teacher of Agriculture, are competent for the work, whether, for example, farmers or farmers' sons or daughters, or pupils of Public Schools or of other High Schools. A list thereof and their reported attendance shall be kept by the Principal of the school; but they shall not be enrolled as regular High School pupils unless they have been admitted to a High School as provided above.

QUALIFICATIONS OF TEACHERS.

3. The teacher of Agriculture in a High School shall hold the degree of B.S.A. from the University of Toronto, or a certificate of qualification from the Ontario Agricultural College. Such teachers may also take part in the Science work of the school at the discretion of the Principal, provided such work does not in any way interfere with their special work as teachers of Agriculture.

DUTIES OF TEACHERS.

4. Like the other members of the High School staff, the teacher of Agriculture shall be generally subject to the authority of the Board and Principal of the High School, the latter of whom shall control his timetable and have the general direction of his movements.

5. With a view to bringing the Department of Agriculture into closer touch with the farming community and of making it more directly beneficial to them, the teacher of Agriculture shall also act as the local agent of the Department of Agriculture for the district, as follows:—

(a) He shall visit from time to time the various parts of the county and report upon their special requirements.

(b) He shall take charge of an office situated in the High School district, where he may meet the farmers, giving them aid and advice,

supplying them with the bulletins of the Department of Agriculture and such other farm literature as may be useful, and discussing with them the latest experimental results of the work of the Ontario Agricultural College.

(c) He shall keep in touch with local Agricultural Associations, Farmers' Institutes, etc., and shall act in concert with the staff of lecturers, demonstrators, and professors of the Ontario Agricultural College.

(d) Where practicable, he will arrange for excursions for students and others to the Agricultural College in the month of June, and shall take special charge during such visits of those who have been in attendance on his classes.

(e) He shall attend the Winter Fair and annual meeting of the Experimental Union, held yearly in Guelph for one week in December.

ACCOMMODATIONS AND EQUIPMENT.

6. A suitable Laboratory and the Equipment necessary to carry out the work as outlined under Chemistry, Physics, and Biology:

Experimental Grounds, separate from the ordinary School Grounds, for illustration purposes in the growing of various classes of farm crops and training in experimental work. The area of the Grounds will be determined by local conditions; one acre might be sufficient.

A list of suitable equipment from which Boards may select has been prepared and may be obtained on application to the Education Department.

INSPECTION.

7. The Agricultural Department of each High School or Collegiate Institute shall be inspected at least once each year by an officer of the Ontario Agricultural College deputed for this purpose by the Minister of Education. This officer shall report to both the Department of Education and the Department of Agriculture.

COURSES OF STUDY.

8. The regular Special Course in Agriculture in a High School shall be the two years' one, as defined below. Partial courses may also be provided in the High School for regular High School pupils or for such occasional pupils as may desire them.

9. Regular High School pupils taking the special course in Agriculture shall take in addition the subjects which are obligatory upon all High School pupils, namely, Geography, Arithmetic and Mensuration, English Grammar, Writing, Reading, English Composition, English Literature, and History, with such suitable modifications of this course, and with such additional subjects, as may be deemed expedient by the Principal and the parent or guardian of the pupil. [See Reg. 39, (4) and (6), of 1904.]

10. It is not intended that all the work outlined in the course below shall be covered in two years. The outline is suggestive rather than obligatory, and the amount of work to be taken up shall be determined by the needs of the community, and the nature of the special subjects

selected. In some districts, Horticultural subjects, for example, will receive special emphasis; in others, Dairying, and, in others again, Stock raising, and so on.

11. In addition to the regular Special High School Course, partial courses shall be provided, when needed, in the High School and in other parts of the county, of such duration and character as may meet the needs of the farming community. These may include short courses in Horticulture; Soils, Seeds, Weeds; Farm dairying, Poultry keeping, etc., as well as demonstrations and lectures in particular subjects (Stock judging, Seed judging, etc.) at one or more meetings at suitable centres. In these courses the teacher of Agriculture will be assisted, when necessary, by members of the staff of the Ontario Agricultural College, and he will be supplied by the College with abundant material for demonstration purposes.

12. High School pupils who take the two years' Special Course herein provided, and whose competency is attested by the Principal of the school and the teacher of Agriculture, shall be eligible for entrance to the Second Year work of the Ontario Agricultural College.

13. The following is the regular two years' Special Course, to be organized in accordance with the requirements of each locality:

(1) *Field Husbandry*.—History of agriculture; different systems of farming; different kinds of soil; rotation of crops; farm crops in their relation to drainage; application of manures; green manuring; preparation of the land for the different crops; methods of cleaning, testing, and selecting farm seeds; study of cereals, roots, fodder crops, grasses, clovers, and other farm crops; sowing, harvesting, preserving, marketing.

Experimental grounds near the school will be used for illustrative experiments with varieties of cereals, grasses, root crops, and in seed selection, methods of cultivation, rotation of crops, and the use of various kinds of fertilizers.

(2) *Animal Husbandry*.—A study of the history and characteristics of the principal breeds of live stock, including light and heavy horses, beef and dairy cattle, sheep, and swine; feeding and management; principles of breeding; registration of pedigrees; market requirements.

Visits to local farms, and practical work in judging stock.

(3) *Dairy Husbandry*.—The herd; formation, care, and management of a dairy herd, rearing of calves; dairy stables: lighting, cleaning and ventilating; individual cow records. The milk: care of milk, elementary chemical and bacteriological study of milk. The home dairy: running of hand separators and care of dairy utensils; manufacture, packing, and marketing of butter.

Visits to local creameries and cheese factories, and a study of factory methods of manufacture, packing, and marketing.

(4) *Poultry*.—The most valuable breeds and varieties of hens, ducks, geese and turkeys, their characteristic points and peculiarities; various methods of housing poultry; incubation, brooding, and rearing of chickens; general methods of feeding and management; market conditions; the fattening and dressing of poultry for home and foreign markets.

(5) *Horticulture*.—Treatment of fruit plantations: cultivation, grafting, spraying; value of cover crops; methods of growing and caring for vegetables; selection of varieties; study of insect and fungus diseases affecting fruits and vegetables; care, storing, and marketing of fruit.

(6) *Forestry*.—Forestry as related to the farm; classification of the common forest trees; the establishment, care and protection of the woodlot; varieties and methods for roadside planting and shelter belts.

(7) *Agricultural Botany*.—Identification and eradication of weeds and weed seeds; Seed Control Act and its application; experiments to show seed germination and growth of plants; the relation of plants to soil, air, light, temperature, and moisture; systematic study of the structure of cereals, grasses, legumes, and roots; plant diseases: smut, rust, mildew, etc.; how to recognize and combat them; collecting, pressing, and mounting of weeds, grasses; weed seeds for samples in identification.

(8) *Entomology*.—A practical course in economic insects, identification, habits, and life histories; a close study of the more important insects, by means of breeding and rearing cages; insecticides; collecting of injurious and beneficial insects and samples of their work.

(9) *Agricultural Physics*.—Soil: classification and physical examination, origin, and mode of formation; soil forming, soil forming rocks and minerals; behaviour towards moisture. Surveying and drainage: measurement of fields and farms with the chain; calculating areas and drawing plans; use of various instruments for determining levels, preparing plans for drainage; methods of digging, laying of tile, and filling of trench; calculations concerning required size of tile and cost of various systems. Conservation of moisture by drainage, mulching, and cultivation; capillarity and its relation to plant growth. Water capacity of different soils. Mechanics: principles of farm machinery; principles of ventilation, lighting and heating.

(10) *Agricultural Chemistry*.—Chemical composition of soils; elements used by plants; availability and assimilation of plant food in the soil; application of fertilizers; absorption and retention of important constituents, as nitrogen, phosphoric acid, and potash; insecticides and fungicides; their composition and proper mixture.



MEMORANDUM

COURSES OF STUDY AND EXAMINATIONS

The revised Regulations of 1904, regarding the courses of study and the requirements for the Departmental examinations [See Regulations 43 (3), 46, 47, and 48], are now in full force, except as follows:—

- (1) As in 1905 and 1906, no examination will be held in 1907 in the subjects of Part I of the Junior Teachers' or District Certificate course; but no candidate will be admitted to any County Model School or other training school who does not furnish a statement from the Principal of the school attended, to the effect that the holder has completed satisfactorily the full course prescribed for Part I.
- (2) Candidates who have already passed in one part of the Senior Teachers' examination under the regulations in force in 1905 and 1906 [see Reg. 50 (4)], with or without the Physics prescribed for such examination, must complete at one other examination the list of subjects as prescribed for Parts I. and II. in Regulation 47. For such candidates at the examination of 1907 the pass standard will be 34 per cent. of each paper and 50 per cent. of the aggregate of marks for the papers taken.

In the case of the Mineralogy, the Geometry, and the Mediæval and Modern History of the Upper School, the Departmental examiners will, as heretofore under similar circumstances, be instructed to bear in mind, when setting the papers therein, that the courses in these subjects will be taken up for the first time in the schools during the coming session. The details of these courses are given on pages 71 and 72, and in appendices C. and D. of the Regulations. The same consideration will be shown in the case of the Biology of the Upper School and the Geometry of the Middle School.

TEXT-BOOKS.

The list of text-books authorized in August, 1905, for use in the Public Schools, High Schools and Collegiate Institutes, and County Model Schools, will remain unchanged until further notice. Revised editions of books now on the list cannot be used.

The text-books for the Normal College and the Normal Schools will be announced to the students at the beginning of the session. No Teachers' Reading Course is prescribed for 1907.



MEMORANDUM

SENIOR TEACHERS' EXAMINATIONS

1. Candidates who have already passed in one part of the Senior Teachers' examination under the regulations in force in 1905 and 1906 [see Reg. 50 (4)], may, as in 1907, complete at the examination in 1908 (but not thereafter) the list of subjects as prescribed for Parts I. and II. in Regulation 47. For such candidates the pass standard will be 34 per cent. of each paper and 50 per cent. of the aggregate of marks for the papers taken.

2. The following corrections have been made in the course in Upper School Geometry as given on p. 90 of the Regulations:

For

$$\cos \theta = \frac{A A' + B B'}{\sqrt{A^2 + B^2} \sqrt{A'^2 + B'^2}}$$

read

$$\tan \theta = \frac{A' B - A B'}{A A' + B B'}$$

Prefix signs as below:

$$- \frac{Aa + Bb + C}{Al + Bm}$$

$$\pm \frac{Aa + Bb + C}{\sqrt{A^2 + B^2}}$$

On p. 91, for "Length of tangent" read "Square of tangent."

EDUCATION DEPARTMENT,
TORONTO, September, 1907.



MEMORANDUM

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read

$$\tan \theta = \frac{A' B - A B'}{A A' + B B'}$$

Prefix signs as below :

$$\begin{aligned} & \frac{Aa + Bb + C}{Al + Bm} \\ & + \frac{Aa + Bb + C}{\sqrt{A^2 + B^2}} \end{aligned}$$

On p. 91 for "Length of tangent" read "Square of tangent."



Senior Teachers' Examination.

SPECIAL PROVISIONS FOR PUBLIC SCHOOL TEACHERS.

Regulation 47.—The subjects of examination shall be those prescribed for the Upper School of the High Schools, and the examinations may be taken at one time or in two parts at different times, as follows:—

Part I.—English Composition and Rhetoric, English Literature, Mediæval History, Algebra, Geometry, Trigonometry, and Physics.

Part II.—History (Modern and British), Biology, Latin, with Chemistry and Mineralogy, or French and German, or Greek and German, or Greek and French.

Regulation 47 (above) is amended by the following addition:—

Section I.—The Senior Teachers' examination may be taken in four parts at different times, as follows:

Part I.—English Composition and Rhetoric, Algebra, Geometry;

Part II.—English Literature, Mediæval History, Trigonometry;

Part III.—Modern and British History, Latin, Physics;

Part IV.—Biology with Chemistry and Mineralogy, or French and German, or Greek and German, or Greek and French;

provided always that candidates take at least three of the four parts while actually engaged in teaching, and that they pass a practical examination in addition to the examination in the papers in Biology, Chemistry, and Mineralogy.

Section II. (1) Candidates qualified under section I preceding, who have failed in one subject at an examination in one of the parts, but who have made 40% of the marks on each of the other two subjects and 60% of the total on said two subjects, may carry over to the examination in a part subsequently taken, the examination on the subject in which they have failed.

(2) Candidates qualified under section I preceding, who obtained Junior Leaving standing not later than 1900, may substitute for the course prescribed in Latin for the Senior Teachers' examination, the following courses in English Literature and the History of the English Language and Literature:—

I. ENGLISH LITERATURE—

Familiarity with and intelligent appreciation of the following texts:

Chaucer:—The Prologue; Spenser:—The Faerie Queene—Book I.; Milton:—Paradise Lost—Book I.; L'Allegro and Il Penseroso; Pope:—The Rape of the Lock—The Prologue to the Satires; Goldsmith:—The Traveller, The Deserted Village; Wordsworth:—Ode on Intimations of Immortality, The Reverie of Poor Susan, Lucy Gray, Hart-leap Well, Lines composed a few miles above Tintern Abbey, Yarrow Unvisited, Yarrow Visited, Yarrow Revisited; Tennyson:—In Memoriam (one paper).

II. The History of the English Language and Literature—

A Brief History of the English Language—By O. F. Emerson (The Macmillan Co.).

The History of English Literature as developed in the lives of the following in *The English Men of Letters Series*: Chaucer, Spenser, Milton, Pope, Goldsmith, Wordsworth, Tennyson (one paper).



Senior Teachers' Examination.

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Part I.—English Composition and Rhetoric, English Literature, Mediæval History, Algebra, Geometry, Trigonometry, and Physics.

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Part I.—English Composition and Rhetoric, Algebra, Geometry;

Part II.—English Literature, Mediæval History, Trigonometry;

Part III.—Modern and British History, Latin, Physics;

Part IV.—Biology with Chemistry and Mineralogy, or French and German, or Greek and German, or Greek and French;

provided always that candidates take at least three of the four parts while actually engaged in teaching, and that they pass a practical examination in addition to the examination in the papers in Biology, Chemistry, and Mineralogy.

Section II. (1) Candidates qualified under section I preceding, who have failed in one subject at an examination in one of the parts, but who have made 40% of the marks on each of the other two subjects and 60% of the total on said two subjects, may carry over to the examination in a part subsequently taken, the examination on the subject in which they have failed.

(2) Candidates qualified under section I preceding, who obtained Junior Leaving standing not later than 1900, may substitute for the course prescribed in Latin for the Senior Teachers' examination, the following courses in English Literature and the History of the English Language and Literature:—

I. ENGLISH LITERATURE—

Familiarity with and intelligent appreciation of the following texts:

Chaucer:—The Prologue; Spenser:—The Faerie Queene—Book I.; Milton:—Paradise Lost—Book I., L'Allegro and Il Penseroso; Pope:—The Rape of the Lock, The Prologue to the Satires; Goldsmith:—The Traveller, The Deserted Village; Wordsworth:—Ode on Intimations of Immortality, The Reverie of Poor Susan, Lucy Gray, Hart-leap Well, Lines Composed a few miles above Tintern Abbey, Yarrow Unvisited, Yarrow Visited, Yarrow Revisited; Tennyson:—In Memoriam (one paper).

II. THE HISTORY OF THE ENGLISH LANGUAGE AND LITERATURE—

A Brief History of the English Language—By O. F. Emerson (The Macmillan Co.).

The History of English Literature as developed in the lives of the following in *The English Men of Letters Series*: Chaucer, Spenser, Milton, Pope, Goldsmith, Wordsworth, Tennyson (one paper).



Amendments to the Schools and the Department of Education Acts.

CIRCULAR TO SCHOOL OFFICIALS AND MUNICIPAL COUNCILS.

Changes affecting both the Department of Education and the Public School system were made during the recent session of the Legislature. To some of these changes the Minister now desires to direct the special attention of school officials and municipal councils.

COUNTY MODEL SCHOOLS AND COUNTY BOARDS.

County Model Schools have been abolished. As was intimated in the Departmental Circular of May 28th, 1906, the place of these schools will be taken by the reorganized system of Normal Schools. Of the four new Normal Schools, those at Hamilton, Peterborough and Stratford will be ready to receive students next September.

The abolition of the County Model Schools has rendered unnecessary the existence of County Boards of Examiners. The duties heretofore performed by these Boards outside of their duties as examiners will be performed by the County Public School Inspector.

An amendment to the Department of Education Act provides for the establishment and maintenance of a new system of Model Schools at which will be prepared candidates for the lowest grade of certificate, the new Third Class, which will correspond to the former District certificate, and, as has already been announced, will be valid where the financial conditions of Boards of Trustees prevent them from obtaining a teacher with a certificate of a higher grade.

TEACHERS' CERTIFICATES.

Subsection 3 of section 82 and a portion of subsection 6 of section 87 have been rescinded. The powers heretofore exercised under these subsections by Inspectors to grant teachers' certificates have been trans-

ferred, by amendment to the Department of Education Act, to the Minister of Education, who will hereafter issue all certificates, whether temporary or permanent. The Inspector may recommend for the approval of the Minister the issue of such certificates as are necessary to meet the special requirements of schools under his supervision.

If the Inspector suspends a certificate, the teacher concerned has the right to appeal to the Minister instead of, as heretofore, to the County Board.

Section 82 is amended by adding thereto the following as subsection 9:

(9) The Inspector, while engaged in conducting an investigation into a teacher's inefficiency, misconduct, or violation of this Act or of the Regulations for the purposes of subsection 7 of this section, shall be paid the sum of four dollars per diem and travelling expenses by the Treasurer of the county.

CONTINUATION CLASSES.

Continuation Schools and Fifth Classes.

Subject to the Regulations of the Department of Education, the school corporation of any municipality or school section in which there is no High School shall have power to establish and maintain in connection with the Public School over which it has jurisdiction, courses of study in addition to and in connection with the courses already provided for the Fifth Forms of Public Schools. The classes established under such courses shall be known as Continuation Schools.

The Department of Education Act also provides for the distribution, subject to regulation, of any grant made to Fifth Classes.

In accordance with these amendments, a revised edition of Circular 37 will be issued immediately. Under the reorganization, speaking generally, the former Continuation Classes, Grade A, become Continuation Schools, and the other grades of Continuation Classes will rank as Fifth Classes.

The Act further provides that pupils shall be admitted into Continuation Schools and Fifth Classes in accordance with the regulations governing the admission of pupils into High Schools, or on the report of the Principal, approved by the Public School Inspector of the district.

An amendment to the Public Schools Act also makes clear the fact that Continuation Schools connected with Public Schools are entitled to the township grant, which must be applied to the teachers' salaries.

SCHOOL SITES.

Subsection 1 of section 37 of the Public Schools Act, with all amendments made thereto, is hereby repealed and the following substituted therefor:

(1) A school site shall not be selected in a township within one hundred yards of any garden, orchard, pleasure ground or dwelling house without the consent of the owner thereof unless in the opinion of the School Inspector a suitable school site cannot be obtained at such a distance, in which case the trustees of the section shall have the powers of

expropriation as are possessed by School Boards and Boards of Education in urban municipalities, and where in any case proceedings have been instituted under the enactment hereby repealed, such proceedings may be dropped on payment of costs unless an actual contract for purchase has been concluded.

TEXT-BOOKS, ETC.

The Trustees of Public and Separate Schools, High Schools, and Collegiate Institutes shall have power to provide books, stationery, and other materials necessary in connection with the establishment and maintenance of Penny Savings Banks or any system introduced for the encouragement of thrift and the forming of habits of saving among the pupils.

GRANTS TO HIGH AND PUBLIC SCHOOLS.

Subject to the Regulations of the Education Department, a grant will hereafter be distributed amongst the Art departments of High Schools.

In the distribution of the grant to rural Public and Separate Schools, as already intimated in Instructions Nos. 12 and 13, the length of the teacher's successful experience will also be taken into account, and a special grant will hereafter be distributed amongst the urban municipalities on the bases of the grade of the teacher's certificate and the length of his successful experience.

OTHER AMENDMENTS.

Amendments have also been made to facilitate the working of Consolidated Schools, and to provide for the establishment of such schools in connection with two or more townships.

As will be seen by the revised edition of Circular 37, the Continuation Schools and Fifth Classes in Separate Schools have also been reorganized.

Boards of Trustees and County Councils are also given power to pension Inspectors or other of their officers whose whole time is devoted to the work of the School Board.



EXAMINATIONS.

Instructions regarding examinations for Entrance into High Schools, Entrance into Model Schools, and Public School Graduation Diplomas.

What has been known in the past as the District Certificate examination is now called the examination for Entrance into the Model Schools and in 1908 this examination will be held in the last week in June, in the same week as the examination for Entrance into the High Schools. It will form the academic test of fitness for the new Third Class Certificate which will take the place of the present professional District Certificate, and it will correspond as nearly as may be to the Primary of 1892-1898. (See the explanatory memo. on page 4 of Circular 19.)

Requests have been made from time to time by Public School Inspectors and others for a restoration of the Departmental Public School Leaving Examination. As the policy of the Department has been to decrease, not to increase the number of examinations, these requests have not been granted. The Department, however, announced in section 1 of Circular 19 that it would supply the papers prepared for the examination for Entrance into the Model Schools to be used as a test for granting graduation diplomas to Fifth Class students. This use of the Model Entrance papers is not in any way obligatory, and all expenses in connection therewith must be arranged for between the Inspector and the County Council or School Board concerned. The examination must be held at the same time as the examination for Entrance into the Model Schools, which this year will begin on June 23rd and last till June 27th, at the same time, as nearly as can be, as the High School Entrance.

The question papers for the High School Entrance, and the Model School Entrance (the former District Certificate) will be sent in the same bag. A sufficient number of the Model Entrance papers will be sent to be used for Public School Graduation purposes where such papers have been asked for by the Inspector. In this same bag will also be found the list of candidates, the tally lists, the answer envelopes, the name slips, the diagram sheets, and all the forms necessary for the Model School Entrance examination.

Inspectors and presiding officers will note that the answer-papers of those writing for entrance to the Model Schools and those writing for Graduation Diplomas (if there are any) are to be kept entirely separate.

The former are to be written in the regular examination books, placed in the answer envelopes, noted on the Tally List, and sent to the Department at the close of the examination in the bag in which the question papers came; the latter are to be disposed of as may be directed by the Public School Inspector.

The list of candidates for Model Entrance (Form 44a) found with the question papers will indicate whose answer papers are to be sent to the Department, and no answer papers for High School Entrance or Public School Graduation are to be sent. Candidates for the Model School Entrance, who have failed to send in their applications at the proper time, may be admitted on the morning of the examination, as provided for in instructions No. 5. Their names are to be entered on the Supplementary Lists and on the Tally Lists, and their answer papers are to be treated as are those of the regular candidates for the Model School Entrance.

Inspectors will notice that the examination for entrance into the Model Schools and for entrance into the High Schools will be going on at the same time, and they will make their arrangements so that no teacher shall preside in a room in which any of his own candidates are writing. One presiding officer should be appointed at each centre, with whatever assistant presiding officers may be required according to the number of candidates for the various examinations.

ERRATA.

Page 5, Part III, line 3, after "option 2" supply "Part II".

Page 13, Provincial Certificates, in (1) under 2, "Interim High School certificates" should read "Interim High and Public School certificates."

Page 14, in (c), 50 per cent. should read 60 per cent.

Page 14, (2), (a) 50 per cent. should read 60 per cent.

Page 14, After (2) (a) insert, (b) To candidates who are exempt from attendance and who have obtained 60 per cent. of the marks assigned to the paper in their department.

Page 14, Immediately after (b) insert, (3) Public School Inspectors certificates: To candidates who have obtained 40 per cent. of the marks for each subject and 60 per cent. of the aggregate.

Page 15, clause 6, "Part II" should read "Part III".



DEPARTMENTAL INSTRUCTIONS.

HIGH SCHOOL ENTRANCE EXAMINATION, 1907.

1. The High School Entrance examinations for 1907 will begin on Wednesday, the 26th of June, at 8.45 a. m., and will be conducted under the provisions of Section 41 of the High School Acts and Sections 23-28 of the regulations, subject to the instructions herein contained.
2. Candidates who purpose writing at the examination must notify the Public School Inspector before the 1st day of May.
3. A teacher who has pupils writing at the High School Entrance examination, shall not be eligible to act as an Examiner or Presiding Officer where such pupils are writing.
4. When the County Council recommends the holding of an examination at any place other than the High School, the Presiding Officer shall be paid the sum of \$3 per diem, and travelling expenses for conducting such examination, and the Examiners shall be allowed the sum of \$1 per candidate for reading the answer papers. It shall be lawful for the County Treasurer to pay all the expenses of such examination on the certificate of the County Inspector.

SELECTIONS FOR MEMORIZATION.

Lead, Kindly Light ; A Psalm of Life ; Flow Gently Sweet Afton ; The Heritage ; Elegy Written in a Country Churchyard ; The Barefoot Boy ; Ye Mariners of England.

The selections for memorization are common to both the Ontario and Catholic Readers.

Duties of Inspector.

5. The Inspector shall notify the Education Department not later than the 3rd day of May in each year of the number of persons desiring to be examined at any High School or other authorized place within his jurisdiction.

6. In any city or town forming a separate inspectoral division, the Inspector or Inspectors of such city or town shall preside at the examinations, and in conjunction with the Board of Examiners for such city or town shall read the papers and report to the Education Department.

7. In counties in which more High Schools than one are situated the Inspector for the county shall elect at which High School he will preside, and shall notify the Education Department of the choice he makes, and in each of the other High Schools the Principal of the High School shall preside.

8. In the case of examinations affiliated with a High School, the Inspector, within whose district such affiliated examinations are held, shall appoint Presiding Officers, who shall be teachers in actual service, notice of which shall be sent to the Education Department; and such Inspector, together with the Examiners of the High School with which the examination is affiliated, shall be the Board of Examiners in all such cases.

9. Where from the number of candidates, or any other cause, additional Presiding Officers are required, the Inspector shall make such appointments as are necessary, preference being given to the other members of the Board of Examiners.

10. Where more examinations than one are held in an inspectoral division, the papers will be sent by the Education Department to the Inspector or the Presiding Officer, as the case may be.

11. The parcel containing the examination papers shall not be opened till the morning of the examination day, nor shall any envelope containing the papers in any subject be opened until the time prescribed in the timetable for the examination in such subject.

Duties of Presiding Officers.

12. To be in attendance at the place appointed for the examination at least fifteen minutes before the time fixed for the first subject, and to see that the candidates are supplied with the necessary stationery and seated so far apart as to afford reasonable security against copying.

13. To open the envelope containing the papers in each subject in full view of the candidates, at the time prescribed, and to place one paper on each candidate's desk.

14. To exercise proper vigilance over the candidates to prevent copying, and to allow no candidate to communicate with another, nor permit any person except another Presiding Officer to enter the room during the examination.

15. To see that the candidates promptly cease writing at the proper time, fold and endorse their papers properly, and in every respect comply with the instructions herein contained.

16. To submit the answers of the candidates to the Examiners, according to the instructions from the Board.

Duties of Candidates..

17. Every candidate should be in attendance at least fifteen minutes before the time at which the examination is to begin, and shall occupy the seat allotted by the Presiding Officer. Any candidate desiring to move from his allotted place or to leave the room shall first obtain permission from the Presiding Officer to do so. Any candidate leaving shall not return during the examination in the subject then in hand.

18. Every candidate shall write his answers on one side only of the paper, and number each answer. He shall arrange the sheets numerically, according to the questions, and fold them once crosswise, endorsing them with his name, the name of the subject, and the name of the place at which he is examined. A paper shall not be returned to a candidate after being placed in the hands of the Presiding Officer.

19. Any candidate who is found copying from another or allowing another to copy from him, or who brings into the examination room any book, note or paper having any reference to the subject on which he is writing, shall be required by the Presiding Officer to leave the room, and his paper and the papers of all the guilty parties shall be cancelled.

Duties of Examiners.

20. The papers of the different candidates shall be so distributed that the same examiner shall read and value the answers in the same subject throughout.

21. Marks are to be deducted for mis-spelt words and for want of neatness as indicated in regulation 27.

22.—(a) The reports of the examiners are to be sent (*by mail*) to the Education Department on or before the 25th day of July by the Public School Inspector.

(b) The bag which contains the question papers is to be returned to the Department (charges prepaid) *at the same time* as the reports are sent.

(c) The answer papers of candidates, unless when specially requested, are not to be forwarded to the Department, but are to be retained by the Inspector until the 1st day of October, *after which no case is to be reconsidered.*

(d) The Inspector shall issue a certificate to each candidate who passes the High School Entrance examination.

TIME TABLE.

HIGH SCHOOL ENTRANCE.

Wednesday, June 26th.

- A.M. 8.45— 9.00.....Reading Instructions (Circular 57).
 9.00—11.00.....Composition.
 11.10—11.55.....Spelling.
 P.M. 1.30— 3.30.....Geography.

Thursday, June 27th.

- A.M. 9.00—11.30.....Arithmetic.
 P.M. 1.30— 4.00.....Written Reading.

Friday, June 28th.

- A.M. 9.00—11.00.....English Grammar.
 11.10—12.00.....Writing.
 P.M.—Oral Reading may be taken either Friday afternoon or
 at such other hours as are convenient.



DEPARTMENTAL INSTRUCTIONS.

HIGH SCHOOL ENTRANCE EXAMINATION, 1908.

1. The High School Entrance examinations for 1908 will begin on Wednesday, the 24th of June, at 8.45 a.m., and will be conducted under the provisions of Section 41 of the High Schools Act and Sections 23-28 of the Regulations, subject to the instructions herein contained.
2. Candidates who purpose writing at the examination must notify the Public School Inspector before the 1st day of May.
3. A teacher who has pupils writing at the High School Entrance examination, shall not be eligible to act as an Examiner or Presiding Officer where such pupils are writing.
4. When the County Council recommends the holding of an examination at any place other than the High School, the Presiding Officer shall be paid the sum of \$3 per diem, and travelling expenses for conducting such examination, and the Examiners shall be allowed the sum of \$1 per candidate for reading the answer papers. It shall be lawful for the County Treasurer to pay all the expenses of such examination on the certificate of the County Inspector.

SELECTIONS FOR MEMORIZATION.

Lead, Kindly Light; A Psalm of Life; Flow Gently Sweet Afton; The Heritage; Elegy Written in a Country Churchyard; The Barefoot Boy; Ye Mariners of England.

The selections for memorization are common to both the Ontario and Catholic Readers.

Duties of Inspector.

5. The Inspector shall notify the Education Department not later than the 3rd day of May in each year of the number of persons desiring to be examined at any High School or other authorized place within his jurisdiction.
6. In any city or town forming a separate inspectoral division, the Inspector or Inspectors of such city or town shall preside at the examinations, and in conjunction with the Board of Examiners for such city or town shall read the papers and report to the Education Department.

7. In counties in which more High Schools than one are situated the Inspector for the county shall elect at which High School he will preside, and shall notify the Education Department of the choice he makes, and in each of the other High Schools the Principal of the High School shall preside.

8. In the case of examinations affiliated with a High School, the Inspector, within whose district such affiliated examinations are held, shall appoint Presiding Officers, who shall be teachers in actual service, notice of which shall be sent to the Education Department; and such Inspector, together with the Examiners of the High School with which the examination is affiliated, shall be the Board of Examiners in all such cases.

9. Where from the number of candidates, or any other cause, additional Presiding Officers are required, the Inspector shall make such appointments as are necessary, preference being given to the other members of the Board of Examiners. The number of candidates in charge of one Presiding Officer at the High School Entrance examinations shall not exceed forty, and under no circumstances shall two candidates be allowed to sit at the same desk.

10. Where more examinations than one are held in an inspectoral division, the papers will be sent by the Education Department to the Inspector or the Presiding Officer, as the case may be.

11. The parcel containing the examination papers shall not be opened till the morning of the examination day, nor shall any envelope containing the papers in any subject be opened until the time prescribed in the time-table for the examination in such subject.

Duties of Presiding Officers.

12. To be in attendance at the place appointed for the examination at least fifteen minutes before the time fixed for the first subject, and to see that the candidates are supplied with the necessary stationery and seated so far apart as to afford reasonable security against copying. (See No. 9 above.)

13. To open the envelope containing the papers in each subject in full view of the candidates, at the time prescribed, and to place one paper on each candidate's desk.

14. To exercise proper vigilance over the candidates to prevent copying, and to allow no candidate to communicate with another, nor permit any person except another Presiding Officer to enter the room during the examination.

15. To see that the candidates promptly cease writing at the proper time, fold and endorse their papers properly, and in every respect comply with the instructions herein contained.

16. To submit the answers of the candidates to the Examiners, according to the instructions from the Board.

Duties of Candidates.

17. Every candidate should be in attendance at least fifteen minutes before the time at which the examination is to begin, and shall occupy the seat allotted by the Presiding Officer. Any candidate desiring to move from his allotted place or to leave the room shall first obtain permission from the Presiding Officer to do so. Any candidate leaving shall not return during the examination in the subject then in hand.

18. Every candidate shall write his answers on one side only of the paper, and number each answer. He shall arrange the sheets numerically, according to the questions, and fold them once crosswise, endorsing them with his name, the name of the subject, and the name of the place at which he is examined. A paper shall not be returned to a candidate after being placed in the hands of the Presiding Officer.

19. Any candidate who is found copying from another or allowing another to copy from him, or who brings into the examination room any book, note or paper having any reference to the subject on which he is writing, shall be required by the Presiding Officer to leave the room, and his paper and the papers of all the guilty parties shall be cancelled.

Duties of Examiners.

20. The papers of the different candidates shall be so distributed that the same Examiner shall read and value the answers in the same subject throughout.

21. Marks are to be deducted for mis-spelt words and for want of neatness as indicated in Regulation 27.

22.—(a) The reports of the Examiners are to be sent (by mail) to the Education Department at the earliest possible moment, and not later than July 20th. If the members of the Entrance Board are themselves unable to overtake the work of examining the papers within the time specified they shall appoint qualified teachers (see High Schools Act, Sec: 41 (3)) to assist them so that the returns may not be unduly delayed.

(b) The bag which contains the question papers is to be returned to the Department (charges prepaid) *at the same time* as the reports are sent.

(c) The answer papers of candidates, unless when specially requested, are not to be forwarded to the Department, but are to be retained by the Inspector until the 1st day of October, *after which no case is to be re-considered.*

(d) The Inspector shall issue a certificate to each candidate who passes the High School Entrance examination.

TIME TABLE.

HIGH SCHOOL ENTRANCE.

Wednesday, June 24th.

A.M.	8.45—9.00.....	Reading Instructions (Circular 57).
	9.00—11.00.....	Composition.
	11.10—11.55.....	Spelling.
P.M.	1.30—3.30.....	Geography.

Thursday, June 25th.

A.M.	9.00—11.30.....	Arithmetic.
P.M.	1.30—4.00.....	Written Reading.

Friday, June 26th.

A.M.	9.00—11.00.....	English Grammar.
	11.10—12.00.....	Writing.
P.M.	—Oral Reading may be taken either Friday afternoon or at such other hours as are convenient.	



DEPARTMENTAL INSTRUCTIONS.

HIGH SCHOOL ENTRANCE EXAMINATION, 1909.

1. The High School Entrance examination for 1909 will begin on Wednesday, the 23rd of June, at 8.45 a.m., and will be conducted under the provisions of the High Schools Act and of the Regulations relating thereto, subject to the instructions herein contained.

2. Candidates who purpose writing at the examination must notify the Public School Inspector before the 1st day of May.

3. The Inspector shall notify the Education Department NOT LATER than the 3rd day of May in each year of the number of persons desiring to be examined at any High School or other authorized place within his jurisdiction.

4. Further instructions will be issued later.

SELECTIONS FOR MEMORIZATION.

Ontario Fourth Readers.

VII. Boadicea; XIV. Lament of the Irish Emigrant; XXIX. For a' That and a' That; XLVI. Lead, Kindly Light; LIV. Lochinvar; LXXXIII. The Influence of Beauty; Sonnet—Night (page 302); CV. Elegy Written in a Country Churchyard.

Canadian Catholic Fourth Readers.

VI. Lead, Kindly Light; X. Flow Gently, Sweet Afton; XXXV. Step by Step; LI. Song of the River; LIII. As I Came Down from Lebanon; CI. Inscription for a Spring; CXV. The Bells of Shandon; CXVIII. Elegy Written in a Country Churchyard.



Departmental Instructions.

HIGH SCHOOL ENTRANCE EXAMINATION, 1909.

1. The High School Entrance examination for 1909 will begin on Wednesday, the 23rd of June, at 8.45 a.m., and will be conducted under the provisions of Sections 44-47 of the High Schools Act and of the Regulations (see Cir. 57a), subject to the instructions herein contained.

2. Candidates who purpose writing at the examination must notify the Public School Inspector before the 1st day of May.

Duties of Inspector.

3. The Inspector shall notify the Minister not later than the 4th day of May in each year, on a form supplied by him, of the number and locations of the Entrance centres in his Inspectorate, the name and address of each chief Presiding Officer and the number of persons desiring to be examined at each of such High School Entrance centres.

4. Immediately thereafter he shall send to each Presiding Officer one copy each of the Circulars and Instructions which may be sent to him for that purpose from the Department.

5. He shall present to the Entrance Board a list of the schools in his Inspectorate, which have been approved by him as making adequate provision for teaching the subjects of Group I.

Duties of the Chairman of the Entrance Board.

6. The Chairman of an Entrance Board shall call and preside over every meeting of the said Board.

7. He shall see that such Board performs all the duties assigned to it by the regulations, including—

(a) Appointing a Secretary, and Assistant Presiding Officers and additional Examiners where required;

(b) Dividing the reading of the answer-papers among the members of the Board;

(c) Verifying the certificates of standing in the subjects of Group I, and

(d) Reading and valuing the answer-papers and determining the results.

(e) Considering special cases.

8. He shall sign all certificates and reports and see that the same are forwarded in due time, as required by Regulation 19 (2) of Cir. 57 (a) and instruction number 24 (a) below.

9. He shall make out and transmit the necessary requisitions for all payments due the members of the Entrance Board, as required in Section 46, subsection 4, and Section 47, subsection 3, of the High Schools Act.

10. Where an Inspector is a member of each of two or more High School Entrance Boards, the Chairman of each shall consult with that Inspector regarding the dates of the Board meetings in order that he may be able to attend the meetings of each Board. Arrangements may be made for joint meetings of such Boards in order that uniform standards may be adopted.

Duties of Presiding Officers.

11. The question papers for a centre will be sent by the Education Department to the chief Presiding Officer for that centre.

12. The parcel containing the examination papers shall not be opened till the morning of the examination day, nor shall any envelope containing the papers in any subject be opened until the time prescribed in the time-table for the examination in such subject.

13. Each Presiding Officer shall be in attendance at the place appointed for the examination at least fifteen minutes before the time fixed for the first subject, and shall see that the candidates are supplied with the necessary stationery and seated so far apart as to afford reasonable security against copying. Under no circumstances shall two candidates be allowed to sit at the same desk.

14. He shall open the envelope containing the papers in each subject in full view of the candidates, at the time prescribed, and place one paper on each candidate's desk.

15. He shall exercise proper vigilance over the candidates to prevent copying, and allow no candidates to communicate with another, nor permit any person except another Presiding Officer to enter the room during the examination.

16. He shall see that the candidates promptly cease writing at the proper time, fold and endorse their papers properly, and in every respect comply with the instructions herein contained.

17. Where fees have been imposed, as provided in Section 46, subsection 6 of the High Schools Act, the chief Presiding Officer at a centre shall collect such fees from the candidates and account for the same, as provided in Regulation 8 (2) of Circular 57a.

18. He shall submit the answers of the candidates to the Examiners according to the instructions of the Entrance Board.

Duties of Candidates.

19. Every candidate should be in attendance at least fifteen minutes before the time at which the examination is to begin, and shall occupy the seat allotted by the Presiding Officer. Any candidate desiring to move from his allotted place or to leave the room shall first obtain permission from the Presiding Officer to do so. Any candidate leaving shall not return during the examination in the subject then in hand.

20. Every candidate shall write his answers on one side only of the paper, and number each answer. He shall arrange the sheets numerically, according to the questions, and fold them once crosswise, endorsing them with his name, the name of the subject, and the name of the place at which he is examined. A paper shall not be returned to a candidate after being placed in the hands of the Presiding Officer.

21. Any candidate who is found copying from another or allowing another to copy from him, or who brings into the examination room any book, note or paper having any reference to the subject on which he is writing, shall be required by the Presiding Officer to leave the room, and his paper and the papers of all the guilty parties shall be cancelled.

Duties of Examiners.

22. The answer-papers of the different candidates shall be so distributed that the same Examiner shall read and value the answers in the same subject throughout.

23. Marks are to be deducted for misspelled words and for want of neatness as indicated in Regulation 6 (1) of Circular 57a.

24.—(a) The reports of the Examiners are to be sent (by mail) to the Education Department at the earliest possible moment, and not later than July 15th. If the members of the Entrance Board are themselves unable to overtake the work of examining the papers within the time specified they shall appoint qualified teachers [see High Schools Act Sec. 46 (3) and Sec. 47 (1) (a)] to assist them so that the returns may not be delayed.

(b) The bag which contains the question papers is to be returned to the Department (charges prepaid) *at the same time* as the reports are sent.

(c) The answer papers of candidates, unless when specially requested, are not to be forwarded to the Department, but are to be retained by the Inspector until the 1st day of October, *after which no case is to be re-considered.*

EXAMINATIONS FOR ENTRANCE INTO MODEL SCHOOLS, AND PUBLIC SCHOOL GRADUATION DIPLOMAS.

25. The Department, as provided in section 1 of Circular 19, will supply the papers prepared for the examination for Entrance into the Model Schools to be used as a test for granting Graduation Diplomas to Fifth Class students. This use of the Model Entrance papers is not in any way obligatory, and all expenses in connection therewith must be arranged for between the Inspector and the County Council or School Board concerned. The examination must be held at the same time as the examination for Entrance into the Model Schools, which this year will begin on June 22nd and last till June 26th.

26. The question papers for the High School Entrance, and the Model School Entrance will be sent in the same bag. A sufficient number of the Model Entrance papers will be sent to be used for Public School Graduation purposes where such papers have been asked for by the Inspector. In this same bag will also be found the list of candidates, the tally list, the answer envelopes, the name slips, the diagram sheets, and all the forms necessary for the Model School Entrance examination.

27. Inspectors and Presiding Officers will note that the answers of those writing for Entrance to the Model Schools and those writing for Graduation Diplomas (if there are any) are to be kept entirely separate. The former are to be written in the regular examination books, placed in the answer envelopes, noted on the tally list, and sent to the Department at the close of the examination in the bag in which the question papers came; the latter are to be disposed of as may be directed by the Public School Inspector.

28. The list of candidates for Model Entrance (Form 44a) found with the question papers will indicate whose answer papers are to be sent to the Department, and no answer papers for High School Entrance or Public School Graduation are to be sent. Candidates for the Model School Entrance, who have failed to send in their applications at the proper time, may be admitted on the morning of the examination, as provided for in instructions No. 5. Their names are to be entered on the Supplementary list and on the tally list, and their answer papers are to be treated as are those of the regular candidates for the Model School Entrance.

29. Inspectors will notice that the examination for Entrance into the Model Schools and for Entrance into the High Schools will be going on at the same time, and they will make their arrangements so that no teacher shall preside in a room in which any of his own candidates are writing. One Presiding Officer should be appointed at each centre, with whatever assistant Presiding Officers may be required according to the number of candidates for the various examinations.

Note to Presiding Officers :—

For the examination in Art, candidates should be reminded to provide themselves with all the necessary utensils as stated in the foot note on the time-table. They will, of course, also need water pans and a convenient supply of water.

TIME TABLE.

HIGH SCHOOL ENTRANCE.

Wednesday, June 23rd.

A.M.	8.45	9.00	Reading Instructions (Circular 57).
	9.00	11.00	Composition.
	11.10	11.55	Spelling.
P.M.	1.30	3.30	Geography.

Thursday, June 24th.

A.M.	9.00	11.30	Arithmetic.
P.M.	1.30	4.30	Reading (examination paper).

Friday, June 25th.

A.M.	9.00	11.00	English Grammar.
	11.10	12.00	Writing.

P.M.—Oral Reading may be taken either Friday afternoon or at such other hours as are convenient.

Cir. 57a
10,000—April—1909.



HIGH SCHOOL ENTRANCE

The Act of 1909

AND

The Regulations

WARWICK BRO'S & RUTTER, Limited, Printers,
TORONTO.

Entrance to the High Schools.

I. Provisions of the High Schools Act of 1909.

44. Subject to the Regulations—

- (a) Candidates who pass the uniform entrance examination for high schools held by boards of examiners provided for in this Act shall be granted admission to the high schools;
- (b) Candidates who have completed the course prescribed for the fourth form of the public school or who have in the opinion of a board of examiners completed a course which gives them an equivalent standing may in the discretion of such board of examiners be by it admitted to the high schools without passing such entrance examination.

45. Subject to the Regulations, any person actually engaged in teaching who holds—

- (a) A permanent High School certificate, or
- (b) A permanent First Class certificate, or
- (c) A Provincial Second Class certificate, and has had five years' experience as a teacher,

may be appointed a presiding officer or a member of a board of examiners.

IN THE COUNTIES.

46.—(1) (a) In a county in which one or more high schools have been established, one or more examination centres shall be established by the high school board from time to time in each district and in other parts of the county by the county council. The county clerk or the secretary of the board as the case may be shall give due notice to the public school inspector of the establishment of such centres, and the inspector shall attach each centre established by the county council to the centre or centres of one of the high school districts.

(b) A high school district shall be under one board of examiners. The public school inspector of the inspectorate in which the high school is situate, and the high school principal or principals in the high school district shall be members of the board of examiners. The public school board and the board of separate school trustees, if any,

of the city, town, or village in which the high school is situate, may each, on or before the first day of June in any year, appoint an additional member to the board. The county council may, also, at its meeting in June, in any year, appoint the principal of one continuation school, having a staff of at least two teachers, to be a member of the board of examiners of the high school district to the centre or centres of which his county centre is attached.

(2) (a) In a county in which no high school has been established, the county council, at its meeting in June, in each year, shall appoint a county board of examiners, consisting of the public school inspectors, with as many more members as may appear to be necessary, and preference shall be given to the principals of the continuation schools of the county.

(b) The county council shall also establish such county centres as it may deem necessary, and the county clerk shall notify the public school inspectors of the establishment of such centres.

(3) Subject to the Regulations, every board of examiners shall in each year appoint such additional members as may be required.

(4) Subject to the Regulations, the expenses of the examination shall be paid, on the requisition of the chairman of the board of examiners, in the case of county centres, by the treasurer of the county, and in the case of the high school district centres, by the treasurer of the high school board.

(5) The county council or the high school board, as the case may be, may impose a fee not exceeding \$1.00 upon each candidate at the county and the high school district centres, which shall be paid by the candidate as prescribed by the Regulations, and shall be paid over at or before the close of the written examination, to the treasurer of the county or of the board, as the case may be.

IN THE TERRITORIAL DISTRICTS.

47.—(1) (a) Where there are one or more high schools in a public school inspectorate in territory without county organization there shall be a board of examiners for each high school. The inspector for the inspectorate in which the high school is situate and the high school principal or principals in the high school district shall be members of the board. The public school board and the board of separate school trustees, if any, of the city, town, or village in which the high school is situate, may each, on or before the first day of June of any year, appoint an additional member. Subject to the Regulations, the board of examiners, in each year shall appoint such additional members as may be required, and preference shall be given to the principals of continuation schools in the inspectorate.

(b) One or more centres shall be established by the high school board in each high school district, and with the approval of the Minister, other centres may be selected and attached by the public school inspector to one of the high school district centres in his inspectorate.

(2) (a) In an inspectorate in which no high school has been established, there shall be a board of examiners, consisting of the public

school inspector and as many more members as may appear to him to be necessary, appointed by the inspector, with the approval of the Minister, and preference shall be given to the principals of continuation schools in the inspectorate.

(b) In such inspectorates, the centres shall be selected by the inspector, with the approval of the Minister.

(3) Subject to the Regulations, the expenses of the examinations shall be paid by the Minister out of any money appropriated by legislation and applicable to that purpose.

Continuation Schools.

Section 11 of The Continuation Schools Act, 1909, provides as follows:

Pupils, whether resident or non-resident, may be admitted to a continuation school in accordance with the Regulations governing the admission of pupils to high schools or on the report of the principal approved by the Public School Inspector.

II. Regulations.

1. In accordance with the foregoing provisions of the High Schools Act of 1909, candidates shall be granted admission to the High Schools, as hereinafter provided, on the certificate of the Principal of the Public, Separate, or Normal Model School at which they have been prepared, or on passing the uniform Departmental examination.

SUBJECTS FOR ADMISSION.

2.—(1) Candidates for admission to the High Schools shall be required to have completed the courses in the following subjects as prescribed for Form IV. of the Public Schools:

Group I.—Literature, History, Art, Physiology and Hygiene, Nature Study.

Group II.—Reading, Writing, Spelling, Geography, Grammar, Composition, Arithmetic.

(2) The Literature of Group I. shall embrace the careful reading during the previous year of at least four suitable works in English Literature (at least two of which shall have been read in class), selected by the Principal for each pupil from a list prepared by the Inspector and communicated by him to the schools before they reopen in August or September.

NOTE.—The works in English Literature shall be provided in the school library or bought by the pupils, as the Board of Trustees may direct.

(3) The examination in Reading shall be both written and oral. The examination paper shall be based on sight passages, and shall be designed as a test of the candidate's ability to understand what he reads. The candidate's knowledge of the selections for memorization shall also be tested on this paper.

GROUP I.

3.—(1) (a) Except as provided in 3 (2) and (4) and 7 below there shall be no examination in the subjects of Group I.

(b) Except as provided in (4) below, no candidate shall be admitted to the examination in the subjects of Group II., who does not present a certificate from the Principal of the Public, Separate, or Normal Model School in which he has been prepared, and which has been approved by the Inspector, as provided in (3) (b) below, that he has completed satisfactorily the courses in the subjects of Group I. In the case of a candidate who writes at a centre outside of the inspectorate in which is situated the school at which he has been prepared, the certificate of the Principal shall not be accepted unless endorsed by the Inspector of said school.

(2) If, on the report of a High or a Continuation School Principal, a High School Entrance Board decides that the pupils of any Public, Separate, or Normal Model School are not adequately prepared in the subjects of Group I., the Board may itself subject the pupils coming from such school to an examination in the subjects of the Group, or in any subjects thereof it may deem necessary.

(3) (a) At his official visits to each school in his inspectorate, and thereafter as he may deem it expedient, the Public or the Separate School Inspector, as the case may be, shall make special enquiry as to whether the subjects of Group I. are being efficiently taken up.

(b) In the case of his non-approval of the course in Group I, the Inspector shall notify the Principal to this effect not later than June 15; otherwise, the Principal may assume the Inspector's approval.

NOTE.—One of the subjects upon which the Inspector should report officially to each School Board is the adequacy of the provision made at the date of his visit for teaching the subjects of Group I. As much of this report as he may deem necessary, he should submit to the Principal also, with any necessary suggestions and directions. It might also be well for the Inspector to require the Principal to forward the time-table in use since his last visit, with copies of at least the final school examination papers in the subjects of Group I., and any other records or particulars he may desire. Under Reg. 18 (3) of 1904, the Inspector may exercise such discretion in regard to Art and Nature Study, as the conditions may seem to him to justify.

(4) When an applicant has not been prepared in a Public, Separate, or Normal Model School, the Public School Inspector shall report the circumstances to the High School Entrance Board, which shall deal with such case as it may deem expedient.

NOTE.—At the High School Entrance examination of 1909, Reg. 26, of 1904, shall apply; Reg. 3 above shall apply thereafter.

GROUP II.

(A) *Admission on Certificate.*

4. On its own motion or at the request of a Board of Education or a High School Board, a High School Entrance Board, after such enquiry as it may deem necessary, may grant admission to candidates on the certificates of the Principals of the Public, Separate, or Normal Model Schools, that such candidates have completed satisfactorily the course prescribed in the subjects of Group II.; but candidates not so admitted may take the uniform examination as herein prescribed.

(B) *Admission on Examination.*

5.—(1) A uniform examination in the subjects of Group II. shall be held annually, as prescribed herein, at the centres provided for in the High Schools Act.

(2) The examination papers shall be prepared by a Provincial Board of Examiners appointed by the Minister. The examiners shall be selected from the Inspectors of the Public and the Separate Schools and the Principals of the High Schools.

(3) A report from the Principal as to the standing of his candidates in the subjects of Group II., may be submitted to the Public School Inspector for the consideration of the High School Entrance Board in connection with the examination results.

(4) The answer papers shall be valued and the results settled by the Board of Examiners constituted under the High Schools Act; but no examiner shall value the answer papers of his own pupils.

6.—(1) The marks for the High School Entrance examination shall be apportioned as follows:

Reading (oral), Writing, Spelling, each 50;

Reading (examination paper), Grammar, Composition, Geography, Arithmetic, each 100.

Two marks shall be deducted for each misspelled word in the Spelling paper, and reasonable deductions may be made for misspelling in the other papers. Deductions shall also be made for want of neatness.

(2) A candidate who obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate marks, shall be entitled to pass standing. The examiners may also award pass standing to a candidate who has not made a bad failure in any subject and who has made a high aggregate above the total required.

(3) The decision of a High School Entrance Board shall be final with regard to the admission or rejection of any candidate; but the Chairman may submit a case to the Board for reconsideration on the complaint of any candidate or any other person with regard to the examination.

SPECIAL CASES.

7. In Groups I and II a High School Entrance Board may grant admission, on or without examination, to candidates whose cases deserve special consideration, and who, in its judgment, are able to take up the work of the High School; but this provision shall not apply to a candidate at a centre outside of the inspectorate in one of the Public or the Separate Schools of which he has been prepared, who does not present the certificate of competency in Group I. prescribed in 3 (1) (b) above.

PROVISIONAL ADMISSION.

8.—(1) In the interval between examinations, a pupil who has been prepared on a different course in another Province or Country, or a pupil who was unavoidably prevented from attending the High School Entrance examination, may be admitted provisionally to a High School by the Principal, with the concurrence of the Public School Inspector, if in their judgment he is able to take up the work of the High School.

(2) A report showing the age and attainments of such pupil, with the reasons for his admission, and signed by the High School Principal and Public School Inspector, shall be submitted to the High

School Entrance Board at its next meeting. The Board shall then dispose of the case, and include the name of the pupil, if finally admitted, in its report at the next annual examination.

CERTIFICATES.

9. Each candidate admitted to a High School shall be entitled to a certificate signed by the Chairman and the Secretary.

PRESIDING OFFICERS.

10.—(1) At each centre there shall be a chief presiding officer and such assistant presiding officers as may be required by the Regulations. The chief presiding officer shall have the general oversight of the examination and the custody of the question papers and the answers, and both he and the assistant presiding officers shall be responsible to the Minister for the proper performance of their duties.

(2) The number of candidates under each presiding officer shall not exceed forty.

(3) The Principal of the High School shall be the chief presiding officer at his own school, and the Inspector may be the chief presiding officer at any other centre he may select.

(4) The other chief presiding officers shall be appointed by the senior Public School Inspector, and the assistant presiding officers by the High School Entrance Board.

(5) No presiding officer shall preside over his own pupils.

ORGANIZATION OF THE BOARD.

11.—(1) The High School Principal or the Senior High School Principal, as the case may be, shall be Chairman of a High School Entrance Board on which there are one or more High School Principals.

(2) The Inspector or the Senior Inspector, as the case may be, shall be Chairman of a High School Entrance Board on which there is no High School Principal.

12.—(1) The High School Entrance Board shall appoint annually one of its members as Secretary. The Secretary shall keep the minutes of the Board, and shall record the results, issue the certificates, and report the names of the successful candidates to the Minister and their marks to the unsuccessful candidates.

(2) In an inspectorate in a territory without county organization where there is no High School, the Inspector shall perform the duties of Secretary.

13.—(1) The School Board at each centre, whether in a County or a territory without county organization shall pay the cost of the stationery and any other necessary supplies and all other incidental expenses.

(2) Where candidates are charged fees, as provided in section 46, subsection (5) of the High Schools Act, such fees shall, before the close of the first day of the examination, be collected by the chief presiding officer.

REMUNERATION OF BOARDS AND PRESIDING OFFICERS.

14. Each chief presiding officer shall be paid at the rate of \$4.00 per diem, and each assistant presiding officer at the rate of \$3.00 per diem, for presiding at and conducting the examination in accordance with the instructions of the Department.

15.—(1) A presiding officer, appointed to a centre other than one at his place of residence, shall be allowed the usual cost of conveyance for one return trip between his place of residence and the centre at which he presides.

(2) An examiner whose place of residence is not at the centre where the meetings of the High School Entrance Board are held, shall be allowed for each meeting of the Board the usual cost of conveyance for one return trip between the centre and his place of residence.

(3) Except with the consent of the High School Board or the County Council or the Minister, as the case may be, the allowance for conveyance, provided in (1) and (2) immediately preceding, shall not exceed \$3.00.

16. The examiners shall be paid at the rate of 70c. a candidate for reading the answer papers; and the Secretary shall be paid at the rate of 5c. a candidate.

17. All payments under this section shall be made, on the requisition of the Chairman, as provided in section 46, subsection (4) and section 47, subsection (3) of the High Schools Act.

NOTIFICATION BY CANDIDATES.

18. Every candidate shall notify the Public School Inspector concerned, before May 1st, of the examination centre at which he purposes writing.

REPORTS TO MINISTER.

19.—(1) The Inspector shall report to the Minister not later than the 4th day of May in each year the number of candidates for examination at each centre within his inspectorate.

(2) *Within twenty-one days after the last day of the examination, the High School Entrance Board shall issue certificates to successful candidates and statements of marks to unsuccessful candidates, and report to the Minister, on a form to be supplied by him, the names of the successful candidates at each centre.*

NOTE.—If the members of a High School Entrance Board are themselves unable to overtake the work of examining the papers within the time specified, they shall appoint examiners [see High Schools Act, section 46 (3)] to assist them, so that the returns may not be delayed.

[Regulations 23, 24, 25, 27 and 28 of 1904 are hereby rescinded.]

*FORM OF PRINCIPAL'S CERTIFICATE.

(See Regulations 2 (2) and 3.)

To the Chief Presiding Officer at the High School Entrance centre at

Name of Candidate.....

Age.....

Address.....

Last Form at School.....

I. I hereby certify that.....

(Name of Candidate.)

(1) has been a pupil in this school for the last.....;

(Months or Years.)

(2) has read the following four works in English Literature during the
past year.....(3) and has completed satisfactorily the subjects of Group I. prescribed
for Entrance into the High Schools, viz :—Literature, History, Art,
Physiology and Hygiene, Nature Study.II. I hereby further certify that the course in the subjects of
Group I. in my School has been approved by the Inspector, as provided
in Reg. 3 (3) (b) of 1909.

Principal.

School.....

Principal's Address.....

Dated.....

*The use of the foregoing form of certificate is optional in 1909. In 1910 and thereafter a certificate of this form shall be handed by the candidate to the chief presiding officer before the first examination paper of Group II. is handed out.

In the case of a candidate admitted without examination under Reg. 4 of 1909, this certificate shall be subject to the order of the High School Entrance Board after June 15th.



EXAMINATIONS, 1908.

PREScribed TEXTS.

Entrance Examination.

SELECTIONS FOR MEMORIZATION.

Lead, Kindly Light ; A Psalm of Life ; Flow Gently Sweet Afton ; The Heritage ; Elegy Written in a Country Churchyard ; The Barefoot Boy ; Ye Mariners of England.

The selections for memorization are common to both the Ontario and Catholic Readers.

DISTRICT CERTIFICATE.

Tennyson, The Poet, The Lady of Shalott, Oenone, The Epic and Morte d'Arthur, St. Agnes' Eve, The Voyage, "Break, break, break," In the Valley of the Caunteretz ; Browning, My Last Duchess, "How they brought the good news from Ghent to Aix," Love among the Ruins, Home Thoughts from Abroad, Up at a Villa, Andrea del Sarto, The Guardian Angel, Prospice, An Epistle of Karshish, Cavalier Tunes.

JUNIOR TEACHERS.

English : Tennyson, The Poet, The Lady of Shalott, Oenone, The Epic and Morte d'Arthur, St. Agnes' Eve, The Voyage, "Break, break, break," In the Valley of the Caunteretz ; Browning, My Last Duchess, "How they brought the good news from Ghent to Aix," Love among the Ruins, Home Thoughts from Abroad, Up at a Villa, Andrea del Sarto, The Guardian Angel, Prospice, An Epistle of Karshish, Cavalier Tunes ; Shakespeare, Macbeth.

Latin : Translation at sight of passages of average difficulty from Caesar, upon which special stress will be laid.

Translation from a prescribed portion of Virgil's *Æneid*, with questions thereon.

Questions on Latin accidence.

Translation into Latin of English sentences to illustrate the common rules of Latin syntax, upon which special stress will be laid. The vocabulary will be taken from the prescribed portion of Caesar.

Examination upon a short prescribed portion of Caesar, to test the candidate's knowledge of Latin syntax and his power of idiomatic translation.

[OVER]

The following are the texts prescribed:—

Caesar, *Bellum Gallicum*, Book IV., Chaps. 20-38, and Book V., Chaps. 1-23; Virgil, *Æneid*, Book II., vv. 1-505.

Two papers will be set: (1) Translation at sight, Virgil, and accidence. (2) Translation into Latin, syntax and idiomatic translation from prescribed Caesar, etc.

SENIOR TEACHERS.

English: Tennyson, *The Poet*, *The Lady of Shalott*, *Oenone*, *The Epic and Morte d'Arthur*, *St. Agnes' Eve*, *The Voyage*, "Break, break, break," *In the Valley of the Caunteretz*; Browning, *My Last Duchess*, "How they brought the good news from Ghent to Aix," *Love among the Ruins*, *Home Thoughts from Abroad*, *Up at a Villa*, *Andrea del Sarto*, *The Guardian Angel*, *Prospice*, *An Epistle of Karshish*, *Cavalier Tunes*; Shakespeare, *Macbeth*, *As You Like It*.

Latin: Virgil, *Æneid*, Book II.; Horace, *Odes*, Books III., IV., Cicero, *In Catilinam* I., III., IV.

Greek: Herodotus, *Tales*, ed. Farnell I.-XI. incl.; Homer, *Odyssey*, XXIII.; Lucian, *Timon*; Lysias, *Pro Mantitheo* and *de Invalido*.

French: Lamennais, *Paroles d'un croyant*, Chaps. VII. and XVII.; Perrault, *le Maître Chat ou le Chat botté*; Dumas, *Un nez gelé*, and *la Pipe de Jean Bart*; Alphonse Daudet, *la Dernière Classe*, and *la Chèvre de M. Seguin*; Legouvé, *la Patte de dindon*; Pouvillon, *Hortibus*; Loti, *Chagrin d'un vieux forçat*; Molière, *l'Avare*, Acte III., sc. 5 (*Est-ce à votre cocher . . . sous la mienne*); Victor Hugo, *Waterloo*, Chap. IX.; Rouget de l'Isle, *la Marseillaise*; Arnault, *la Feuille*; Chateaubriand, *l'Exilé*; Théophile Gautier, *la Chimère*; Victor Hugo, *Extase*; Lamartine, *l'Automne*; De Musset, *Tristesse*; Sully Prudhomme, *le Vase brisé*; La Fontaine, *le Chêne et le Roseau*.

Meilhac et Halévy, *l'Été de la Saint-Martin*; Chateaubriand, *Mémoires d'Outre-Tombe* (selections pub. by Clarendon Press).

German: The texts contained in the High School German Reader.

Leander, *Träumereien*, pp. 45 to 90 (selected by Van Daell).

Baumbach, *Der Schwiegersohn*; Elz, *Er ist nicht eifersüchtig*; Wicher, *Post Festum*.



EXAMINATIONS, 1909.

PRESCRIBED TEXTS.

High School Entrance Examination.

SELECTIONS FOR MEMORIZATION.

Ontario Fourth Readers.

VII. Boadicea; XIV. Lament of the Irish Emigrant; XXIX. For a' That and a' That; XLVI. Lead Kindly Light; LIV. Lochinvar; LXXXIII. The Influence of Beauty; Sonnet—Night (page 302); CV. Elegy Written in a Country Churchyard.

Canadian Catholic Fourth Readers.

VI. Lead, Kindly Light; X. Flow Gently, Sweet Afton; XXXV. Step by Step; LI. Song of the River; LIII. As I came Down from Lebanon; CI. Inscription for a Spring; CXV. The Bells of Shandon; CXVIII. Elegy Written in a Country Churchyard.

Model School Entrance Examination.

English:—Coleridge, The Ancient Mariner; Wordsworth, Michael, Influence of Natural Objects, Nutting, Expostulation and Reply, The Tables Turned, The Solitary Reaper, Ode to Duty, Elegiac Stanzas, To the Rev. Dr. Wordsworth, "She was a phantom of delight," To the Cuckoo, The Green Linnet, "Bright flower! whose home," To a Skylark ("Ethereal minstrel! pilgrim of the sky!"), Reverie of Poor Susan, To my Sister, "Three years she grew," September, 1819, Upon the same Occasion, and the following twelve sonnets:—"Two voices are there," "A flock of sheep that leisurely," "Earth hath not anything," "It is not to be thought of," "Fair star of evening," "O friend, I know not," "Milton, thou shouldst," "When I have borne in memory," "Brook! whose society," "Scorn not the sonnet," "Tax not the royal saint," "They dreamt not of a perishable home."

Normal School Entrance Examination.

English:—Coleridge, The Ancient Mariner; Wordsworth, Michael, Influence of Natural Objects, Nutting, Expostulation and Reply, The Tables Turned, The Solitary Reaper, Ode to Duty, Elegiac Stanzas, to the

Rev. Dr. Wordsworth, "She was a phantom of delight," To the Cuckoo, The Green Linnet, "Bright flower! whose home," To a Skylark ("Ethereal minstrel! pilgrim of the sky!"), Reverie of Poor Susan, To my Sister, "Three years she grew," September, 1819, Upon the same Occasion, and the following twelve sonnets:—"Two voices are there," "A flock of sheep that leisurely," "Earth hath not anything," "It is not to be thought of," "Fair star of evening," "O friend, I know, not," "Milton, thou shouldst," "When I have borne in memory," "Brook! whose society," "Scorn not the sonnet," "Tax not the royal saint," "They dreamt not of a perishable home;" Shakespeare, Merchant of Venice.

Latin:—Cæsar, *Bellum Gallicum*, Book IV., chaps. 20-38, and Book V., chaps. 1-23; Virgil, *Æneid*, Book II., vv. 1-505.

Faculty of Education Entrance Examination.

English:—Coleridge, The Ancient Mariner; Wordsworth, Michael, Influence of Natural Objects, Nutting, Expostulation and Reply, The Tables Turned, The Solitary Reaper, Ode to Duty, Elegiac Stanzas, To the Rev. Dr. Wordsworth, "She was a phantom of delight," To the Cuckoo, The Green Linnet, "Bright flower! whose home," To a Skylark, ("Ethereal minstrel! pilgrim of the sky!"), Reverie of Poor Susan, To my Sister, "Three years she grew in sun and shade," September, 1819, Upon the same Occasion and the following twelve sonnets:—"Two voices are there," "Scorn not the sonnet," "A flock of sheep that leisurely," "Earth hath not anything," "It is not to be thought of," "Fair star of evening," "O friend! I know not," "Milton! thou shouldst," "When I have borne in memory," "Brook! whose society," "Tax not the royal saint," "They dreamt not of a perishable home;" Shakespeare, Merchant of Venice, Henry IV., Part I.

Latin:—Cæsar, *De Bello Gallico*, Books I. and II.; Horace, Odes, Book I., 1, 2, 5, 6, 10, 14, 22, 24, 31, 34, 35, 38; Book II., 3, 10, 14, 15, 16, 18; Book III., 1, 2, 3, 4, 5, 13, 21, 24, 25, 29, 30; Book IV., 2, 4, 5, 7, 15.

Virgil, *Æneid*, Book II., vv. 1-505; Cicero, *Pro Lege Manilia*.

Greek:—Xenophon, *Hellenica* (Philpotts' Selections, sections I. and II.); Homer, *Iliad* I., 1-350; III., 121-244; VI., 66-118, and 237 to the end; *Odyssey* VI. and IX.

French:—Lamennais, *Paroles d'un croyant*, Chaps. VII. and XVII. Perrault, *le Maître Chat ou le Chat botté*; Dumas, *Un nez gelé*, and *la Pipe de Jean Bart*; Alphonse Daudet, *la dernière Classe*, and *la Chèvre de M. Seguin*; Legouvé, *la Patte de dindon*; Pouvillon, *Hortibus*; Loti, *Chagrin d'un vieux forçat*; Molière, *l'Avare*, Acte III., sc. 5 (*Est-ce à votre cocher . . . sous la mienne*); Victor Hugo, *Waterloo*, Chap. IX.; Rouget de l'Isle, *la Marseillaise*; Arnault, *la Feuille*; Chateaubriand, *l'Exilé*; Théophile Gautier, *la Chimère*; Victor Hugo, *Extase*; Lamartine, *l'Automne*; De Musset, *Tristesse*; Sully Prudhomme, *le Vase brisé*; La Fontaine, *le Chêne et le Roseau*.

Labiche, *le Voyage de Monsieur Perrichon*; Mérimée, *Quatre Contes*, ed. by F. C. L. Steenderen (Holt & Co.).

German:—The texts contained in the High School German Reader. Baumbach, *Waldnovellen*; Zschokke, *Der tote Gast*.



Regulations—Manual Training.

Approved by Order-in-Council.

1. Subject to the conditions herein mentioned, the Macdonald Institute, Guelph, shall be the only institution recognized by the Education Department for the training of teachers in Manual Training.

2. The Macdonald Institute shall provide, to the satisfaction of the Education Department, suitable courses of study as well as adequate accommodation, equipment and instruction for students desiring to become teachers of Manual Training.

3. Any person holding at least a second class certificate from one of the Normal Schools, who completes satisfactorily a one year's course at the Macdonald Institute, shall be awarded a teacher's certificate in Manual Training.

4. Any graduate of the Normal College, who completes satisfactorily a one year's course at the Macdonald Institute, shall be awarded a teacher's certificate as a Specialist in Manual Training.

5. Any person holding a certificate from the Macdonald Institute as a Teacher of Manual Training shall be qualified to have charge of a department of Manual Training under any High, Public or Separate School Board.

6. No grant shall be paid by the Government towards a department of Manual Training unless the teacher who has charge of such department is duly qualified as herein provided.

7. A certificate as a Teacher of Manual Training or as a Specialist in the same department shall give no qualification to teach any of the other subjects of the Public or High School curriculum.

8. These provisions shall not affect any person who is now in charge of a department of Manual Training in any High, Public or Separate School, or who may be appointed by the Board concerned before the 1st of September, 1904 ; it being understood, that such persons shall have qualifications satisfactory to the Minister of Education.



Regulations—Household Science.

Approved by Order-in-Council.

1. Subject to the provisions hereinafter mentioned, no certificate to teach Household Science shall be awarded after September 1st. 1904, to anyone who does not hold at least Junior Leaving or Junior Matriculation standing.

2. All institutions whose graduates may be recognized as teachers of Household Science shall provide, to the satisfaction of the Education Department, suitable courses of study as well as adequate accommodation, equipment and instruction, for students preparing to become teachers in this department.

3. Every student who desires to become a teacher of Household Science must take a two years' course of study in the department, but any person holding, at least, a certificate from one of the Normal Schools who completes satisfactorily a one year's course shall be awarded a teacher's certificate in Household Science.

4. Any graduate of the Normal College who completes satisfactorily a one year's course at one of the recognized institutions for the training of teachers in Household Science shall be awarded a teacher's certificate as a Specialist in this department.

5. Any person holding a certificate to teach Household Science granted by the Education Department shall be qualified to have charge of a department of Household Science under any High, Public or Separate School Board.

6. Certificates as teachers of Household Science shall give no legal qualification to teach any of the other subjects of the school curriculum.

7. No grant shall be paid by the Government towards a department of Household Science unless the teacher who has charge of such department is duly qualified as herein provided.

8. These provisions shall not apply in the case of teachers already in charge of the department of Household Science or to students preparing to be teachers of the subject who have been enrolled before the date of these regulations.

EDUCATION DEPARTMENT,
Toronto, April, 1904.



Syllabus of the Course of Studies.

Special Professional Summer Schools in 1907.

In accordance with "An Act respecting the Qualifications of Certain Teachers," of 1907,

For members of the Roman Catholic Educational and Religious Communities,

To be held at

Ottawa: For English-French teachers, in the D'Youville Separate School; for other teachers, in the Normal School;

Peterborough: In the St. Peter's Separate School;

Toronto: For male teachers, in De La Salle Separate School; for female teachers, in Toronto University;

Hamilton: In the St. Anne's Separate School;

Berlin: In the St. Mary's Separate School;

London: In the Sacred Heart Separate School.

Session: Begins at 2 p.m. on July 3rd, and lasts till August 3rd.

TORONTO:

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty

1907

Syllabus of the Course of Studies.

I.—EDUCATIONAL PRINCIPLES AND METHODOLOGY.

NOTE.—The course in Methodology will be based on McMurray's "Method of the Recitation".

Aim of Education.—Individual and social phases of education; their relation.

The Educational Process.—Its nature and relation to the end and means of education.

Subject Matter of Instruction.—The principle of correlation and concentration of studies.

Method of Instruction.—The relation of method to subject matter; the problem of method as a psychological problem.

Ultimate Modes of Being Conscious.—Involution of phases; self-consciousness and self-activity.

Habit and Association.—Primary instincts or inherited co-ordination; relation of habit to primary instincts; bodily conditions of the formation of habits; functions and limitations of habit; nature of association; conditions of association; varieties of association; relation of association to habit; how to form permanent associations.

Attention.—Nature of attention as a process; conditions of attention; relations of attention to habit and association; interest, its nature and relation to attention; voluntary and non-voluntary attention distinguished; attention in young children and in adults compared; divided attention and concentration of attention; securing and retaining attention; obstacles to attention.

Apperception and Retention.—Meaning of the terms; their relation; mental assimilation, growth and development.

Laws of Mental Development.—General principles of development; the transition from the practical to the intellectual attitude in learning; stages of intellectual development.

Individual and General Notions.—How they are distinguished from each other; how individual notions should be approached and presented; how to proceed from individual to general notions; the value of types in the development of general notions; how general notions should be applied.

Laws underlying the Process of Teaching.—The relation of analysis to synthesis, of induction to deduction.

II.—SCHOOL MANAGEMENT.

The School.—Its function; scope of school management; responsibility of teachers and trustees.

Building and Grounds.—Requirements regarding sites, buildings, furniture, decoration, heating, lighting, and ventilation.

Physical Culture.—Its importance, its place in school; personal hygiene, importance of cleanliness; dangers of fatigue; games, gymnastics, calisthenics, military drill.

Moral Training.—Basis of; need of moral training; intellectual growth related to moral growth; the personality of the teacher; moral value of discipline and good teaching; incidental moral instruction; moral value of school studies; character building the true end of education; training of the will; formation of tastes and habits; importance of regularity, punctuality, industry, obedience, truthfulness, honesty, courtesy, self-control, etc.

Discipline.—Qualifications of the good teacher—scholarship, professional attainments, executive ability, tact, etc.; aim of discipline; characteristics of good discipline; conditions of discipline; devices of discipline; methods of dealing with difficulties.

School Incentives.—Need of incentives; choice of motives; artificial incentives—prizes, privileges, exemptions; natural incentives—desire for good standing, for knowledge, for approbation; love of activity, of self-control; hope of future success; sense of honor, of right, of duty.

Punishments.—Need of punishments; the basis and ends of punishment; misconceptions to be avoided; characteristics of proper punishments; the discipline of consequences; judicious punishments; injudicious punishments; corporal punishment.

School Organization.—Its nature and advantages; difficulties to be met; grades of schools; characteristics of rural schools; basis of classification; disadvantages of ungraded schools; the first day; plans to be formed; delays to be avoided; size of classes; mixed classes; promotions.

School Programmes.—Advantages of prescribed courses; value of subjects; co-ordination, correlation, and concentration of studies; fixed courses; optional subjects; time-tables for rural and urban schools; recesses; school records.

Recitations.—Their importance; preparation by teacher and pupils; manner of the teacher before the class; value of method; oral and written work; empirical, developing, lecture, conversational and other methods; illustrative teaching; analytic and synthetic methods; inductive and deductive methods; auxiliary methods; faulty teaching.

The Art of Questioning.—Its aims; its abuse; the teacher's prerequisites; matter, form, kind, and order of questions; faulty questions; testing and training questions; class questioning—simultaneous, consecutive, promiscuous, and combined methods; forms of answers; criticism of answers.

Written Examinations.—Their objects and advantages; training examinations; tests of promotions; qualifying examinations; examination questions; objections considered; defects of written examinations; evils of competitive examinations.

III.—SCHOOL PROGRAMME OF STUDIES.

The following courses are intended to enable the teacher to deal effectively with the various subjects included in the official programme of studies for Public and Separate Schools. In connection with each of these courses the rationale and the sequence of the details of each of the prescribed subjects will be systematically developed; also the proper use of the equipment prescribed by the Regulations.

GRAMMAR.

Meaning of English Grammar; its relation to speech, composition, and literature; discussion of reasons for its place in a course of study; its scope and aims; course for elementary schools.

Principles to be observed in teaching; order and method of early lessons; value of correct definitions; how reached; how applied; analysis and parsing, purpose and value of each, method of teaching; emphasis on classification or on function; oral and written exercises; proper use of false syntax.

SPELLING.

Aims in teaching spelling; its place in the elementary school; its relation to other subjects. Teaching spelling, not merely testing.

Methods: association of eye, ear, and hand; oral spelling; transcription; sight spelling; memory spelling, word building, phonic spelling, advantages and disadvantages of each; spelling rules, value, how taught.

Lesson procedure in junior forms, in senior; choice of material; number of words; teaching word forms; detection of errors; correction of errors; spelling drills and reviews; use of spelling book.

LANGUAGE.

Adequate knowledge of the mother tongue the foundation of educating; influences opposed to good usage; clearness of speech attainable by all; aim of teaching to make good English a fixed, unconscious habit; habit acquired through the teacher's critical oversight, and unconsciously by reading good literature and associating with those who speak good English.

To observe, to think, to express, the right order; weakness of teaching mere formal linguistic exercises; relation of language to other school studies.

Imitation of good examples the foundation; steady pressure and unremitting attention by the teacher essential, eradicating faulty habits of speech; much of the best teaching incidental; extending and clarifying the vocabulary; discussion of the value of some language-lesson books.

COMPOSITION.

Aims of teaching Composition; connection between oral and written composition; difficulties and how to overcome them; some themes to be taken from the pupils' experiences; others, from the Literature, History, and other lessons; the structure of paragraphs and of sentences; the use of capitals and punctuation marks; letter writing; direct and indirect narration; paraphrasing; introduction of grammatical equivalents; change of construction; how to deal with false syntax; methods of teaching composition, with illustrations; correction of compositions.

LITERATURE.

The nature and interpretation of Literature; aims in teaching literature; kinds of literature adapted to different grades.

Methods varied according to the grade of pupil, and the kind of literature. Memorization of selections; the study of the author's life.

Aids in teaching; appreciation of literature by the teacher; reading of good literature by the teacher to the pupils; abundant supply of good literature for schools; relation of schools to school and public libraries; the use of annotated editions.

READING.

Aims in teaching Reading; general principles in teaching primary reading; methods of teaching to read—alphabetic, phonic, phonetic, word—the advantages and disadvantages of each method; methods of presenting first reading lessons; qualities of good reading and how to secure each; audibility, enunciation, articulation, pronunciation, fluency, time, and expression. Simultaneous reading; reading from imitation; supplementary readers. Detection and correction of errors; drawing; stammering; monotone, etc.

GEOGRAPHY.

What Geography comprises; its relation to other subjects; Geography and Nature Study. Aims in teaching Geography.

Order of steps—observe, express, reason; necessity for thorough study of home locality; dependence of early lessons upon environment or suggestive incident.

Geographical excursions; value; how conducted.

Teaching ideas of time, distance, size. Representation through modelling or map drawing; teaching pupils to draw maps, to read maps; weather observations and records; simple geographical experiments; full, well assimilated knowledge of important points, the aim.

Mathematical geography. Political geography of home locality; relation of this locality to whole country; of the country to the world at large.

Right order of topics in teaching a continent or a country; use of a text-book; common mistakes in teaching Geography.

Preparation of his work by the teacher; equipment of the school; books for the pupils.

HISTORY.

Uses of History—for guidance, for culture, for intellectual training, for imparting a love of country; what is implied in knowing history; where and when to begin; methods of teaching it—chronological, topical, analytical, synthetical—the value and application of each; selection of facts to be taught; historical perspective; dates; use of biography, with examples from Canadian and British history; topics in Canadian and British history; the poetry of history; civics.

Sources of information; oral teaching and the use and abuse of text-books; use of local history and general knowledge; common mistakes in method; preparatory lessons; how to arouse interest; requirements of the teacher.

ARITHMETIC.

Aims in teaching Arithmetic; general principles to be observed; common errors in teaching arithmetic and how to avoid them.

The use of concrete objects such as kindergarten sticks, cubes, etc., in teaching notation and numeration; how to teach the numbers from 1 to 9, from 10 to 20, etc.; number pictures, etc.

How to introduce the simple rules; devices to insure accuracy and rapidity in addition; the method of decomposition in subtraction; the method of equal additions; the method of complementary additions; the two methods of decomposition and equal additions compared; how to teach the multiplication table; multiplication by one figure, by factors, by two figures, etc.; connection of division with subtraction; its connection with multiplication; which should be taught first, long or short division; division of factors; merits and limitations of the unitary method; weights and measures; use of apparatus.

Methods of introducing fractions and connecting them with previous rules; the fraction considered as an equal part of a unit, and as a quotient; methods of deducing the different rules in fractions; decimal fractions; methods of deducing the different rules in decimals; recurring decimals.

Practice, commission, interest, discount, stocks; the metric system of weights and measures.

Methods of finding the area of the rectangle, triangle, circle, trapezium; the volume of the rectangular solid, the right cylinder, the cone, and the pyramid.

NATURE STUDY.

Aims in conducting Nature Study; Nature acquaintance; methods of Nature Study; correlation with other subjects; distinction between Nature Study and Science in aim and spirit; nature collections, their use and abuse; field excursions, their purpose, and the manner of conducting them; uses of school gardens, how to prepare them; illustrations of the work in the different school forms.

ART.

Aims in teaching Art; form study, drawing, and colour-work; relation to other school subjects; methods of teaching; illustrations of the work in the different school forms.

CONSTRUCTIVE WORK.

Aims in teaching Constructive Work; various kinds of, with the particular purposes of each; relation to other school subjects, and to the work of practical life; methods of teaching; illustrations of the work in the different school forms.



SYLLABUS
OF
The Professional Summer School
1909 AT
LAST SESSION Hamilton & Ottawa
Normal Schools.
Normal School Standard

For members of the Roman Catholic Religious Communities

Under Section 4 of "An Act respecting the Qualifications
of Certain Teachers," of 1907.

AND

For holders of Permanent Third Class Public School Certificates.



TORONTO:

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.
1909.

WARWICK BRO'S & RUTTER, Limited, Printers,
TORONTO.

AT
Hamilton & Ottawa
Normal Schools.

PREFATORY MEMORANDUM.

I.

Applications for admission to this Summer School must be made to the Deputy Minister of Education on or before May 1st, 1909. As soon as possible thereafter, the locality of the School will be announced. The session will begin on Monday, July 5th, at 2 p.m., and end on Wednesday, August 4th.

II.

Into this School will be admitted the following :

(a) Members of the Roman Catholic Religious Communities who are qualifying under section 4 of "An Act respecting the Qualification of Certain Teachers," of 1907.

(b) Holders of permanent Third Class Certificates, whether Public or Separate School teachers, in accordance with the following regulation: "The Minister of Education may grant Second Class Interim Certificates to holders of permanent professional Third Class Certificates who attend the course and pass the final examination of the professional Summer School, of Normal School standard, to be held in 1909, who also pass the final examinations in Groups I. and II. and an examination in the subjects of group III. of the Normal Schools, and whose success and ability as teachers have been certified to, before they attend the Summer School, by the Inspector under whom they last taught."

(c) A limited number of other applicants who desire merely to improve their professional qualifications.

(1) Candidates for Second Class Certificates under the foregoing act or regulation who are actually engaged in teaching may take the Normal School examinations in Groups I., II., and III. in the same year or in different years and in any order. If taken in different years, candidates must make 40 per cent. of the marks for each subject and 60 per cent. of the total in the Group or Groups so taken.

(2) The final examinations will be held at the same time as the regular Normal School Examinations, viz., in March and in June.

(3) For reasons satisfactory to the Minister, the examinations in Groups I. and II. may be conducted at a centre other than a Normal School, provided the Presiding Officer is appointed by the Department, and the cost of the examination is provided for.

(4) The examination in Group III. must be conducted either at a Normal School, or at another centre in the same city or town as the Normal School, provided such centre is equipped with the necessary apparatus.

(5) In Group III. written examinations will be held in the case of Spelling, Writing, Bookkeeping, Physiology and Hygiene, Manners, School Law and Regulations. Written and practical examinations will be held in Art, Music, Reading, Manual Training, Household Science

and Physical Training. Candidates will be asked to submit certified samples of their work in Art, Writing and Book-keeping, Manual Training, Household Science (Sewing) and Nature Study. The written examinations will, where possible, contain questions on matter, as well as methods of instruction and the practical examinations will be a test of the candidate's skill in expression and teaching. The samples of work submitted in the different subjects should follow the outline of the work for the different grades of the public school and the grade for which each is suitable should, where possible, be indicated on it. With the view of making the practical work as comprehensive, and as complete as possible, candidates are advised to correspond with the Masters of the Normal School where they propose to write, and determine the character of the work undertaken in the schools.

(6) It is to be understood, of course, that the final examination in Groups I. and II. for teachers qualifying under the above regulations will be the same as for the students in regular attendance. (See Normal School Syllabus of Studies.)

III.

The staff of this Summer School will assume as follows:

(a) That each teacher-in-training has studied carefully, at least those portions of the books recommended for reference, which treat of the topics enumerated in the following courses in the Science of Education, the History of Education, and School Organization and Management;

(b) That the academic work in each subject taken up under Special Methodology, below, has been carefully reviewed by each teacher-in-training.

(c) That the professional work of the Model Schools or the Summer School of Model School standard, as the case may be, has been carefully reviewed.

IV.

For certain of the subjects in the Public School Programme of Studies, no provision has been made under Special Methodology in this Summer School Course. Summer Schools, open to all, are held each year, in most of these subjects, at the Ontario Agricultural College, Guelph, and the University of Toronto.

FEBRUARY, 1909.

Professional Summer School of 1909.

SYLLABUS OF COURSES.

NORMAL SCHOOL STANDARD.

THE SCIENCE OF EDUCATION.

The object in the course in the Science of Education is to provide the teacher with a working conception of the nature of education which will be useful to him in forming ideals and determining procedure, to give him a rational basis for intelligently evaluating and selecting subject matter and methods of instruction, and to improve natural tact and skill through the acquisition of experience, with the least expenditure of time and energy. The present course includes Applied Psychology, Child Study, and General Methodology.

Introduction.

(Three lessons.)

(1) *The Aim of Education*: Stated in its most general terms: statement and criticism of the chief current definitions of education; individual and social phases of education.

(2) *The Function of the School in Education*: Its relation to the other social institutions, the home, the church, the state, the vocation.

I. *Applied Psychology.*

(Twenty lessons.)

Special attention shall be given to the pedagogical conclusions to be derived from the psychological principles considered. The course, which is intended to be a SIMPLE and PRACTICAL one, shall include the discussion of the following topics:

(1) *Psychology*: Fields of psychology; methods of psychological enquiry; the use of psychology to the teacher.

(2) *Habit*: Automatic and reflex action; primary instincts; development of reflexes; formation of habits and the development of motor control; the relation of habit to will; the intellectual and ethical aspects of habit.

(3) *Attention*: Nature of attention as a process; conditions of attention; forms of attention; discrimination; association; interest, its nature and relation to attention; methods of securing and retaining attention; obstacles to attention.

(4) *Apperception and Retention*: Meaning of the terms; their relation; mental assimilation, growth and development.

(5) *Sensation*: Distinctive characteristics of sensation; relation of sensation to knowledge; neural basis of sensation; classification of sensations.

(6) *Perception*: Distinctive characteristics of perception; genesis and development of perception; training of perception and formation of habits of observation.

(7) *Imagination*: Conditions or re-presentation; distinctive characteristics of imagination; relation of image to idea; mode of operation of imagination; reproductive imagination, productive imagination; training of imagination.

(8) *Memory*: Distinctive characteristics of memory; conditions of retention, recall, recognition; training and development of memory processes.

(9) *Conception*: Distinctive characteristics of conception; relation of concept and image; the function of language in the formation of concepts.

(10) *Judgment and Reasoning*: Distinctive Characteristics of judgment; relation of concept and judgment; the distinctive characteristics of reasoning; training in judgment and reasoning.

(11) *Affective Elements of Consciousness*: Elementary forms of affection; affection in its relation to sensation, perception, imagination, memory, and reasoning.

(12) *Emotion*: Distinctive characteristics of emotion; conditions of emotional development; classification of emotions; training of emotions.

(13) *Development of the Will*: Impulsive and volitional acts distinguished; distinctive characteristics of volition; definition of character; means of character development.

Book of Reference.

Betts' Mind and Its Education.

II. Child Study.

(Five lessons.)

Child study enables the teacher-in-training to adapt intelligently his methods in each subject to the child's mind at the different stages of its growth. The course includes the following topics:

(1) The scope of Child Study; methods of investigation; importance to the teacher of the study of the child mind.

(2) Physical growth and development during infancy, childhood, and adolescence.

(3) Mental development during the above periods.

(4) Individual differences in children.

III. General Methodology.

(Twenty-five lessons.)

The course in General Methodology forms a basis for the courses in Special Methodology. The course includes the following topics:

(1) *The Problem of General Method*: The relation of general method to special methods and to teaching devices; the relation of method to subject matter.

(2) *The Doctrine of Interest*: The relation of the child's interest to his native instincts and capacities; the relation of interest to self-activity; the use of interest in the school-room.

(3) *The Principle of Correlation*: Based on the unitary character of experience; illustrations of the use of the principle in school work; the theory of concentration or the grouping of all the subjects of the curriculum about a central one; examination of various plans for correlation and concentration.

(4) *Individual and General Notions*: Their relation to each other, the processes by which each is developed; the principle of apperception.

(5) *Impression and Expression*: Their interdependence; importance of this interdependence as the basis for the constructive side of school work; its bearing upon the development of character.

(6) *Types of Recitation*: The development lesson, the drill lesson, the review lesson, etc., mental processes involved in each; value of each type.

(7) *The Plan of the Recitation*: Adjustment to the needs and the capacities of the pupils; relation to previous work; statement and criticism of the "five formal steps" of the Herbartians.

(8) *Teaching Devices*: Use of questioning in the development of individual and general notions; right and wrong methods of questioning; examination of the so-called Socratic method; answers; qualities of a good answer; treatment of faulty answers; mistakes in dealing with answers; illustrations; their office and value; by objects and by words; use of the blackboard.

Book of Reference.

Bagley's *The Educative Process*.

SPECIAL METHODOLOGY.

(Sixty lessons.)

The books to be studied as preparation for and in connection with the following courses are those now in use in the Public and High Schools.

The courses, as defined below, contain both information and topics for discussion. To the latter the Master shall devote most of his attention; and, owing to the short time at his disposal, he shall give directions and suggestions as to future work after he has dealt with general and essential principles. Occasionally, also, when he considers it judicious, he shall use the teachers-in-training as a class for illustrative purposes.

The object of the courses is to enable the teacher-in-training to adapt to the work in each subject the principles of General Method. All the work shall be done in terms of the Public School Programme of Studies.

Provision is made in the Introduction on p. 3 for a discussion of the general aim of education. The special aim of each subject in the programme dealt with below is also stated in general terms. Such statements enable the teacher to evaluate and select details.

I. *Language and Composition.*

The special aim of the course in Language and Composition is to prepare the teacher to train his pupils to speak and to write good English as a fixed, unconscious habit. The course includes the following topics:

An adequate knowledge of the mother-tongue the foundation of education.

The nature of language, and the connection between language and thought; every lesson a means of training in language; much of the best language training incidental; the habit of speaking and writing good English to be formed unconsciously by reading good literature and associating with those who speak good English, also by the teacher's critical oversight; the influence of the teacher's own language and the importance of libraries for supplementary reading; the influences opposed to good usage; common faults and how to deal with them; steady, unremitting attention by the teacher in the school and in the play-ground essential; criticism by pupils and teachers; its value and dangers; how to make pupils self-critical.

Composition of two kinds; oral and written; both to be taught in class answers, and in a systematic series of special exercises; oral composition throughout; special utilization of oral work in the early stages, written as soon as the pupil has attained proficiency in the mechanics of writing: materials for both kinds: the content of lessons to be of worth and of interest to pupils; familiar talks to encourage freedom and fluency in speech; the reproduction of fairy and folk stories, fables, poems, biographies, etc., which have a vocabulary and idiom similar to those of ordinary speech; relative value of reading and of telling stories, etc., for reproduction; use of imagination; transition from reproduction to originality; personal experiences, real and imaginary; stories from pictures; developing themes from minor incidents; extending the pupils' vocabulary; value of memorizing poetry and prose; comparative value of verse and prose; how to memorize.

Connection between oral and written composition; value of their combination in the same lesson; written sentence work: when to introduce it; aims to be kept in view; the value of transcription, paraphrasing, transposition, change of construction, interchange of direct and indirect narration, grammatical equivalents; paragraph compositions; the whole composition; the choice of topics; gathering, selecting, and arranging material; the value of topical outlines; the arrangement of paragraphs in a composition; use of models; letter-writing with special attention to form and style.

How to teach the mechanics of written composition: capitals, punctuation and quotation marks, abbreviations, etc.

Lesson Procedure: Planning the composition; use of the black-board; compositions written in school, supervision and aid during writing; home-work, how to provide therefor; how to correct school and home compositions; the value of rewriting.

II. *Reading.*

The special object of the course in Reading is to prepare the teacher to train his pupils to get the writer's thoughts and feelings (*intelligent reading*) and to communicate them to the listener so that

he may appreciate them (*intelligible* reading). The course includes the following topics:

The pupil's ability to interpret words limited by his experience; his previous preparation; relation of idea, sound, and printed symbols; the formation of accurate visual and auditory impressions; constant necessity for connecting the printed symbol directly with the idea; interpretative reading; expression as conditioned by the thought and by the presence of the person to whom it is addressed; criticism by teachers and by pupils; function and value of model reading; silent reading, sight reading, dramatic reading, elocution, declamation; devices for securing rapid word recognition; devices for securing natural expression; the pupil's use of the dictionary; common faults on the part of both pupil and teacher and how to correct them; importance of training in reading and the principles of vocal expression to pupil's ordinary speech and general culture.

The first stage in teaching Reading; the sentence, word, phonic, alphabetical methods; their advantages and disadvantages; importance of a combination of methods; criticism of devices that fix attention upon word forms rather than thought; drill on troublesome words at periods apart from the reading exercise; use of script or print at the first, transition from script to print; use of blackboard; the picture and its uses; seat exercises. The second stage deals with reading for thought and pleasure with some freedom; use of primers, blackboards, and supplementary readers; increased attention to expression; value of imitative reading at this stage; training the ear to the beauty of language through the rhythm and music of poetry; word-drill continued. The objects of the advanced stage are to give the pupil the power to communicate in an effective and pleasing manner the thoughts which he has been trained to extract for himself from the printed page; to create and foster a taste for good literature.

The necessity for attention to the principles of vocal expression: time, inflection, pitch, force, quality, pause, phrasing, emphasis, stress; and to exercises for rendering the organs of speech subservient to the will—vocalization, articulation, breathing, development of chest and lungs, vocal training for pure tone; the connection between Reading lesson and the Singing lesson.

III. *Spelling.*

The special object of the course in Spelling is to prepare the teacher to secure accuracy in the mechanism of written word-expression. The course includes the following topics:

The relation of spelling to other subjects; special relation to writing and to reading; teaching spelling, not merely testing; incidental teaching; selection of material; right grouping of words; causes of bad spelling, the age and mental status of pupils as conditions of good spelling.

Appeals to the eye, to the ear, by training the muscular sense—separately or in combination; oral spelling, transcription, sight spelling, memory spelling, and word building—advantages and disadvantages of each; spelling rules, value, how taught; relation of the reading lesson to spelling words therein; use of the board, of the dictionary,

of the spelling book; requirements on the part of the teacher; detection and correction of errors, re-writing; value of spelling drills and reviews, and how to conduct them; need of varying method.

IV. *Literature.*

The special object of the course in Literature is to prepare the teacher to create in his pupils a taste for good literature while broadening their knowledge, moulding their characters, and aiding them to appreciate the beauty and power of artistic expression of thought and feeling. The course includes the following topics:

The nature and elements of literature; restricted meaning for elementary classes; importance of the study in the development of character; its value in the cultivation of the imagination and taste; main object the comprehension of the meaning; futility of attempts to develop formally the critical sense; correlation with the other subjects of the course.

Qualities of literature that appeal to children at different stages; paramount importance of selecting material suitable for the different stages of child life; the relative values of prose and poetry; complete wholes *versus* extracts; teacher's work with pupils to be oral at first; comparison of the values of reading and telling; pupils to read for themselves as soon as practicable; seat work and home work in literature; the study to be pleasurable, a fundamental condition; special importance of the teacher's own qualifications; intensive and extensive study; importance and method of memorizing selections; importance of the school library; how to secure the co-operation of the home.

Preparation by pupils and teacher; from whole to part, then back to whole; purpose and suitability of the introduction; place of the author's biography; meaning of words, phrases and sentences, important only as parts of the whole; treatment of figures of speech, etc.; value of oral and written reproduction; importance of oral reading of selection after study thereof; difficulty of examining in literature; specimen examination questions.

Suggestions as to suitable fairy-tales, fables, nature-stories, poems, etc.; value of stories containing some dramatic action, some pleasing personality or incident; the basis of selection, the ends of the child's emotional nature.

V. *Grammar.*

The special object of the course in Grammar is to prepare the teacher to give the pupils a basis for self-criticism in language by developing the principles of language structure, to secure precision of expression, and to train in habits of logical analysis. The course includes the following topics:

Meaning of English grammar; its relation to speech, composition, reading, literature; the use and value of our remaining inflections; English grammar, the logic of English speech; reasons for and against retaining it in elementary schools; difficulties inherent in the subject; how to begin it; no systematic grammar lessons before Form

IV.; the parts important for elementary classes; outline in order of the indispensable portions of the subject; the danger of over-emphasizing its value as a means of logical training.

Principles to be observed in its teaching; basing it on the concrete; the sentence, the starting point; basal value of function; order and method of early lessons; value of correct definitions—how to be obtained, how to be applied; analysis and parsing, aim and value of each; value of diagrams; importance of classification; oral and written exercises; value of false syntax; common mistakes in teaching.

VI. *History.*

The special object of a course in History is to prepare the teacher to train pupils to adapt human experiences to present situations. In the elementary stages the chief objects are to arouse an interest in historical studies, to enable the pupils to appreciate the logical sequence of events, and to give them a knowledge of their civil rights and duties; also to create a love for country. The course includes the following topics:

Topical and chronological methods compared; three stages of historical teaching: picture and story stage, the information stage, the intellectual stage; importance of developing interest; the place and value of local history; value of Canadian history, and of British history since the Elizabethan period; aids and illustrations; value of civics in the different grades; how to use text-books; the character of supplementary books suited to pupils of different grades.

Importance of preparation by the teacher; preparation by pupils; oral and written recitations; the lecture method in combination with work by pupils; use of maps, blackboards, etc.

Suggestions as to the selection and arrangement of suitable material for the different grades, such as biographies, customs and habits of people, history of aborigines and pioneers, historical epochs, characteristics of nations, beginnings of governments, histories of industries, etc.; the correlation of history with geography, reading, and literature; ballads, orations, epics, legends and tales of chivalry, narrative poems, historical novels; the history and significance of the flag.

Errors to be avoided in teaching History: Trivial events that have no general significance, full chronologies, genealogies of kings, enlarged descriptions of military campaigns, etc.; dangerous discussions of religious movements and of recent contemporary history; the giving of condensed notes or epitomized statements, etc.; the use of cram books.

VII. *Geography.*

The special object of a course in Geography is to prepare the teacher to show man's place in the world and to extend man's control over the forces of nature. This subject and Nature Study and Elementary Science occupy a fundamental position in the course of studies; a knowledge of them enables man to interpret new experiences, to understand the experiences of others, and to adapt himself to new conditions. The course includes a definition of the scope of the subject; also the following topics:

Fundamental principles; causes and effects; the analytic, synthetic; inductive, deductive, topical and other methods, advantages and disadvantages of each; common mistakes and how to avoid them; study begins with home locality and extends therefrom; proper use of maps and globes; scales of maps and projections; order of topics in teaching a country or continent; danger of too great detail; relation to history; special importance of preparation by the teacher.

Aids to Teaching: Maps, globes, pictures, blackboard drawing, natural objects, specimens of products, lantern slides, stereopticon views; representation through modelling and through map-drawing; weather observations and records; simple geographical experiments; geographical excursions, value and management; inter-school correspondence; value of reference library, books of travel, etc.

VIII. *Arithmetic.*

The special object of the course in Arithmetic is to prepare the teacher to familiarize his pupils with the processes of arithmetic, so that they may apply them readily and accurately in making such calculations as their future life may render necessary; also to employ it effectively as a means of logical training. The course includes the following topics:

The nature of number: the origin of number as a result of the necessity for the valuation or limitation of quantity by measurement; the unit, its nature and use.

Inductive and deductive methods of treatment, their relation; the use of text-books and of the prescribed apparatus; the importance of training in accuracy and speed in computation; danger of over-emphasizing the value of arithmetic as a means of logical training.

Applied Arithmetic: Oral arithmetic, its importance, place, and use; problems, their value, essentials of proper solutions; the "unitary method" discussed.

Methods of dealing with the most important arithmetical operations in accordance with the requirements of the class.

IX. *Algebra.*

The special object in the course in Algebra is the same as that in arithmetic, having regard to the fact that algebra is arithmetic generalized. The course includes the following topics:

When and how to introduce it; its nature and scope; its relation to arithmetic; a comparison of the nature and application of its symbols and operations with those of arithmetic; the equation as a means of connecting the subject with arithmetic and of introducing its symbols; the origin and explanation of algebraical symbols.

The use of induction, deduction, and mathematical induction in algebra.

Testing algebraic operations by "checking;" application of algebra to geometry; simple graphs.

Methods of dealing with the most important algebraical operations in accordance with the requirements of the class.

X. *Geometry.*

The special object of the course in Geometry is to enable the teacher to train the reasoning powers of his pupils by inductive and deductive processes. The course includes the following topics:

The nature and scope of the subject; an outline of the development of geometry; when geometry should be begun; methods of treatment—inductive and deductive; the relation of inductive geometry to deductive geometry; the inductive course for beginners.

Method of introducing the definitions.

The use of simple instruments, compasses, protractor, divider and set square, in the measurement of lines and angles; the construction of lines and angles of given magnitude and the construction of geometrical figures.

The inductive method of proving a few of the leading propositions of Euclid, through the accurate construction of figures; the deductive application of principles as they are reached through induction; accuracy in construction coördinate with exactness of thought.

HISTORY OF EDUCATION.

(Fifteen lessons.)

The study of the History of Education widens the professional outlook and rationalizes school practice through the discussion of the development of educational theories. It interprets such theories and practices in their relation to the social ideals and processes of their day and the continuity of their development, and in the light of the Science of Education. As a phase of the history of civilization, it requires an historical background; as a treatment of varying national ideals, it discusses movements rather than individuals. The course includes the following topics:

(1) *Greek Education*: The Greeks, their social organization, the city state; old Greek education, with Spartan education as its type; new Greek education, with Athenian education as its type; the great educational theorists, Socrates, Plato, and Aristotle; the idea of a liberal education.

(2) *Roman Education*: National ideals of Rome and Greece contrasted; social organization of the Romans; educational ideals; Roman schools; the idea of a practical education.

(3) *Education of the Middle Ages*: Contrast between the Classic and the Mediæval world; life in the Middle Ages; influence of Christianity on education; early Christian schools; the education of the cloister and the castle.

(4) *The Renaissance and the Rise of Humanism*: The relation of the Renaissance to modern civilization; the Renaissance as represented by Erasmus, Ascham, and Sturm; humanistic conception of education: humanism and realism.

(5) *The Reformation and the Counter-Reformation*: The Reformation and the Renaissance; Luther and elementary education in Germany; schools of the Jesuits and other religious orders.

(6) *Realism and Science in Education*: Humanism and culture *versus* realism and utilitarianism; Verbal realism as represented by Rabelais; social realism as represented by Montaigne; sense realism as represented by Comenius.

(7) *Education according to Nature*: Development of the new conception of education; Locke and Rousseau; nature *versus* culture.

(8) *Modern Educational Theories*: The psychological ideal as represented by Pestalozzi, Herbart, and Froebel; the Sociological ideal, education as social adjustment.

(9) *Contemporary Tendencies in Education*: As illustrated in the development of public education in Great Britain, the United States, and Ontario.

Book of Reference.

Monroe's *Brief Course in the History of Education*.

SCHOOL ORGANIZATION AND MANAGEMENT.

(Twelve lessons.)

The object of the course is to give the teacher, in the light of the Science of education, a knowledge of the technique of school management and organization, which will enable him to secure the smooth and efficient working of his school. The course includes the following topics:

(1) *The Teacher*: Natural qualifications of a good teacher; importance of scholarship, of training, of experience, of professional studies, of wide culture, of Teachers' Associations, etc.; the teacher's relations with the principal, the inspector, trustees, parents; his civic and social duties; his personal power and influence in the school, in the community; his daily preparation for teaching; correcting written exercises; care of health.

(2) *Teaching*: What is meant by teaching; the teacher to know the subject, the child, the method; characteristics of good teaching; common defects.

(3) *Classification*: The meaning and the problems of school organization; promotions, when and how made; in graded schools, the division of subjects and pupils among the several teachers.

(4) *The Daily Programme*: Its purpose and value; principles involved in the construction of a time-table; seat work; individual blackboard work; the question of fatigue; typical time-table for graded and for ungraded schools; school records.

(5) *Technique of Class Instruction*: Characteristics of a good lesson; common defects; effects of over-teaching; means of securing the interest and sympathy of the pupils; advantages of class instruction; defects of a rigid class instruction; value of the individual system.

(6) *Examinations*: Good effects; bad effects; school results that cannot be tested by examinations; how to set examination papers; reading and valuing the answers; examinations as related to promotions.

(7) *School-room Routine*: Chief varieties of mechanizing routine, their advantages and disadvantages; appointment of monitors.

(8) *Desirable School Habits*: Punctuality, neatness in person and in work; accuracy, quietness, industry, obedience; their relation to moral training.

(9) *School Incentives*: Kinds and office; effects on character, on school work, on health.

(10) *Order and Discipline*: What is meant by good order; authority essential to effective discipline; the chief elements of governing power; faults and how to avoid them; co-operation of school and home; punishment, ends and necessity; right conditions; characteristics of judicious punishment; injudicious punishment; the discipline of consequences.

(11) *Morals and Manners*: Importance in a scheme of education; character-building, the chief object of education; the teacher's personal influence; the child's susceptibility and initiativeness; temperaments and dispositions; how to give right notions of conduct.

(12) *Physical Education*: Relations of physical and intellectual development; importance of change of work; value of plays and games; organized or unorganized play; the teacher on the play-ground; physical exercise within the school.

(13) *The Kindergarten*: Its essential principles; relation to the school system as a whole.

(14) *School Accommodation and Premises*: For information in addition to that given at last year's Summer School, the teacher-in-training is referred to the Departmental Circular, No. 33, of 1907.

Book of Reference.

Landon's *Principles and Practice of Teaching and School Management*.

EXAMINATIONS.

In addition to the daily oral and written exercises there will be a final written examination covering all the courses, in accordance with the following time-table:

Tuesday, August 3rd.

The Science of Education 9.00 till 11.45 A.M.
Special Methodology—First Paper 2.00 till 4.00 P.M.

Wednesday, August 4th.

The History of Education 8.45 till 10.15 A.M.
School Organization and Management....10.30 till 12.00 M
Special Methodology—Second Paper 2.00 till 4.00 P.M.
The maximum values for the subjects shall be as follows:

The Science of Education, 300; School Management and Organization, and the History of Education, 100 each; Special Methodology, each paper, 150.

Of the marks for each subject, one-third shall be allowed for the class exercises and the rest for the final examination.

MEMORANDUM FOR PRESIDING EXAMINERS.

1. In order to avoid any possible oversight or delay at the examinations, the Presiding Examiner is requested TO READ CAREFULLY the enclosed instructions and make himself familiar with the duties to be performed.

2. The confidential circular respecting the examinations in Botany of the First and Third Forms is enclosed, so that the Presiding Examiner may make himself acquainted with the special duties required.

3. The enclosed time-table must be strictly followed and as stated in Instruction 8 for candidates, the paper to be used for all subjects, including Drawing and Bookkeeping, must be the kind authorized. Candidates are not permitted to bring into the Examination Hall ruled paper for the examinations in Bookkeeping. Attention is called to Instruction 14. The forms with necessary directions will be found in the bag which is not to be opened until the morning of the examination.

4. After opening the bag the Presiding Examiner is requested to arrange the envelopes containing the question papers in the order in which the subjects appear on the time-table and thus prevent the distribution of papers at any time other than that mentioned in the time-table. Presiding Examiners are requested to forward to the Education Department the answer papers of each Form IMMEDIATELY on the completion of the examination in that Form.

5. In the case of centres having an examination in Science of the Fourth Form the material required as mentioned in Instruction 13 (*d* and *e*) will be sent in time for the examination in that department.

6. It is to be noted that whilst the examination in the Practice of Stenography for Commercial Diplomas requires a rate of 50 words per minute, that for Commercial Specialists' Certificates exacts 60. In both examinations the rate of transcription is 12 words per minute.

7. In view of the large number of candidates and the importance of the interests concerned, Presiding Examiners are requested to aid the Department in having the Examinations carefully conducted.

JOHN MILLAR,
Deputy Minister.

Education Department,
Toronto, May, 1897.



Memorandum.

A few weeks ago in the local items of some of the Toronto papers, it was announced that another edition of the High School Euclid, edited by John Sturgeon MacKay, M.A. and published by The Hunter, Rose Company, would shortly be ready for all teachers who prefer its use to the work recently authorized.

From correspondence in this Department, it is thought that the item referred to was not noticed by several teachers who have believed that no additional copies of the book mentioned would be published. This Department has been assured by The Hunter, Rose Company that it has now on the press an edition of the said Euclid, containing books I-III (price 50c.) which will be ready in a very short time.

EDUCATION DEPARTMENT,

Toronto, November 6th, 1902.



MEMORANDUM FOR PRINCIPALS OF SCHOOLS.

As it is represented that the granting of medals and prizes on the basis of the relative standing of candidates at the Departmental Examinations is the means of withdrawing pupils from the High Schools which they should properly attend, the Department will not, hereafter, furnish the standing of High School pupils for the purpose of such awards.

JOHN MILLAR,
Deputy Minister.

EDUCATION DEPARTMENT,
Toronto. Jan., 1897.



Junior and Senior Teachers' and Matriculation Examinations.

SCHEDULE OF FEES.

1. Each Examiner will be paid \$75.00 for setting the papers allotted to him by the Board of Examiners, (Circular : Instructions No. 7, Sections 5, 6, and 9), and for attending all meetings of the Board necessary for that purpose. For each meeting which the Examiner should attend and from which he absents himself, \$10.00 shall be deducted from the aforesaid \$75.00.

2. Each Examiner will be paid \$6.00 per diem for discharging the duties mentioned in sections 9 and 10 of Instructions No. 7. The number of papers to be read per diem in preparing the Scholarship returns or the results of appeals will be two-thirds of the average of papers examined per day by an Associate Examiner in the same subject.

3. Each Examiner, not a resident of Toronto, will be allowed his actual travelling expenses to and from his place of residence in the Province while attending meetings of the Board.

MEMORANDUM.

1. Conditions of appointment and acceptance are to be found in Instructions No. 7. (Duties of Examiners, 5-12.)

Attention is particularly called to sections 5, 6, 8 and 9.

2. Detailed statement as to the dates at which MSS., revises, results of examinations, etc., were received at the Education Department, and as to the way in which the conditions of sections 5-12 of Instructions No. 7 were fulfilled, must be submitted to the Minister of Education in October of each year.

3. Further particulars in regard to the courses and papers will be given by the chairman of the Board of Examiners at the time of meeting.

(3) All manuscripts and printer's proofs of examination papers are to be addressed to the Chairman of the Board of Examiners and are to be transmitted to the Education Department by registered post or delivered in sealed envelopes.



Departmental and Matriculation Examinations.

SCHEDULE OF FEES.

1. Each Examiner will be paid \$15.00 for setting each paper allotted to him, (Circular : Instructions No. 7, Sections 6 and 9), and \$6.00 per diem for attending all meetings of the Boards necessary for that purpose.
2. Each Examiner will be paid \$6.00 per diem for discharging the duties mentioned in Sections 10, 11 and 12 of Instructions No. 7. The number of papers to be read per diem in reading the Scholarship and appeal answer-papers will be two-thirds of the average of papers examined per day by an Associate Examiner in the same subject.
3. Each Examiner will be allowed his actual travelling expenses to and from his place of residence in the province and his actual living expenses while attending meetings of the Boards. (Sections 9, 10 and 11 of Instructions No. 7.)

MEMORANDUM.

1. Conditions of appointment and acceptance are to be found in Instructions No. 7. (Duties of Examiners, 6-13.)
2. Detailed records as to the dates at which manuscripts, revises, results of examinations, etc., were received at the Department, and as to the way in which the conditions of sections 6-13 of Instructions No. 7 were fulfilled, are kept for the information of the Minister of Education.
3. Further particulars in regard to the courses and papers will be given by the Chairman of the Boards of Examiners at the time of meeting.
4. All manuscripts and printer's proofs of examination papers are to be addressed to the Chairman of the Boards of Examiners and are to be transmitted to the Education Department by registered post or delivered in sealed envelopes.



The Recent Amendments to the Public Schools Act.

MEMORANDUM FROM THE MINISTER OF EDUCATION.

I. THE DUTY OF THE STATE.

The first duty of the State is to provide conditions conducive to good citizenship. Foremost among these conditions is an efficient system of Public Instruction, especially in a democratic community, for there especially the voter must be educated. Each Provincial Government, accordingly, accepts full responsibility by enacting compulsory educational laws and regulations and enforcing their observance by a comprehensive system of inspection. Moreover, each Government contributes largely of the public funds for the support of education ; it requires the municipalities to provide their share for the same purpose ; and our Public Schools are free.

II. CONDITIONS OF EFFICIENCY IN SCHOOLS.

Efficiency in a school system cannot be secured without competent teachers and suitable accommodations and equipment ; and competent teachers cannot be secured unless the salaries paid them are such as to induce men and women of maturity, scholarship and ability to become and to remain teachers.

III. THE SERIOUSNESS OF THE PRESENT PUBLIC SCHOOL SITUATION.

For some years the Public School System of Ontario, as a whole, has been in an unsatisfactory condition. The following are evidences of the seriousness of the present situation :

(1) The general discontent with the condition of the Public Schools (the rural schools in particular), as shown for years by adverse and widespread newspaper criticisms, by the complaints of public men, and by the representations of public school inspectors and other educationalists who know the situation at first hand.

(2) The scarcity of teachers and the resultant lowering of the standard of their qualifications.

As the schools must be kept open, an insufficient supply of teachers necessarily lowers the standard. The statistics demonstrate this ; for the number of temporary certificates and certificates lower than third class rose in rural schools from 463 in 1903 to 954 in 1905, and the number for the present year will show a still greater increase, notwithstanding the efforts the Department has made to prevent it. The seriousness of the situation is emphasized by the following additional statistics : In 1905, of 5,694 teachers in the rural schools, 2,904 held third class certificates ;

1,693, second class ; and, in all the rural schools of this rich and prosperous Province of Ontario, there were only 143 teachers with first class certificates. The statistics of the urban schools make a better showing ; for, in the same year, of 2,985 in these schools, 88 held temporary, or lower than third class ; 232 third class ; 2,159, second class ; and 506, first class.

(3) The large number of female teachers and the decrease in the number of male teachers.

The following table shows the general tendency in the Public Schools since 1867 :

Year.	Total.	Male.	Female.	Year.	Total.	Male.	Female.
1877....	6,134	2,915	3,219	1897....	8,376	2,690	5,686
1882....	6,467	2,964	3,503	1902....	8,497	2,200	6,297
1887....	7,103	2,627	4,476	1903....	8,560	2,062	6,498
1892....	7,818	2,635	5,183	1904....	8,610	1,957	6,653
				1905....	8,679	1,839	6,840

In the rural schools, in 1903, 1,542 were males and 4,115 females ; and, in 1905, 1,320 were males and 4,374 females. Here also the urban municipalities make a better showing ; for, in 1903, 520 were males and 2,383 females ; and in 1905, 519 were males and 2,466 females. The seriousness of the situation is, however, shown more unmistakably by the statistics of the Normal School attendance. In 1901, 121 male teachers attended the Normal Schools ; and in 1902, 123 ; while, on the lengthening of the term, the numbers each year from 1903 to 1906, were only 14, 22, 18, 20 ; that is, of a total attendance for these years of 1,162, only 74 were males.

The preponderance of females is due to the fact that the inducements for males to enter the teaching profession have year after year become less and less potent, owing largely to the greater remuneration offered elsewhere.

For junior forms, female teachers are more suitable than male teachers ; but, for fourth and fifth forms, male teachers are generally necessary. This proposition needs no defence.

(4.) The increase in the number of teachers who are young (in most cases from eighteen to twenty-one or twenty-two) and who remain teachers only a short time.

This condition is due partly, as above, to the inducements in other occupations and partly to the fact that the girls, who are by far the more numerous, become teachers with no intention of remaining longer than the three years for which their third class certificates are valid. The teachers in the rural schools are, accordingly, continually changing. The average term of service, indeed, is less than five years. It stands to reason that we cannot have efficiency under such conditions. No business in which most of the experienced employees are replaced every five years by other and inexperienced ones, could possibly succeed.

(5.) The general condition of the rural schools to-day is, in many sections, little, if at all, better than it was twenty or twenty-five years ago.

As a class, the rural schools have not benefited by the prosperity of the country, nor have they advanced as have the High Schools and the Universities. In the suitability of their accommodations and in their equipment, including libraries, etc., they are, generally speaking, relatively and

absolutely defective. The best teachers, too, are leaving the rural schools and entering upon other occupations, or they are going west to the new provinces, where, instead of the \$250, \$300, or \$350 they get here, they can readily obtain from \$600 to \$800 a year. In fact, for years, our Normal Schools have been training teachers for Manitoba and the western territories; and, to keep up our supply, we have had to resort to the products of the Model School, and insufficiently trained inexperienced teachers, and to holders of temporary certificates. The salaries, too, in some places in Ontario are now actually lower than they were ten or fifteen years ago, notwithstanding the increased cost of living. To-day we must pay the man who splits our wood at least \$1.50 a day: we can get a teacher—a poor one, indeed—at less than a dollar a day. The cause is not far to seek; many sections market their schools and take the cheapest (and generally the poorest) applicant. Some years ago, when there were forty or fifty applicants for nearly every vacancy, the standard was not at once raised. Under-bidding lowered salaries, and this inevitable result has in turn become the cause of our present distress.

IV. HOW IMPROVEMENT MAY BE EFFECTED.

While most of the poorer sections spend as much on their schools as can be expected from them and many are spending even more; while, also, many sections are spending a fair amount, a very large number are spending far less than they are able. The Government is charged with the responsibility of maintaining an efficient system; and, owing to the default of the section boards, which are primarily responsible, the Government is bound to interfere. As has already been pointed out, the efficiency of the schools depends upon the suitability of the accommodations and the equipment, the qualifications of the teachers, and the salaries paid them. Improvement on these three lines is, accordingly, the present object of the Government's policy.

The Legislative and County Grants will hereafter be distributed on a basis which will improve both the accommodations and the equipment, and, to assist boards in providing proper equipment, the Legislature, at its last session, made a special grant of \$10,000 to the Continuation classes, and of \$10,000 to the District schools. For general purposes, it gave a special grant of \$60,000 to the rural schools in old Ontario and required the counties to add the equivalent of this special grant and of the grant to Continuation classes. An extra township grant of \$150 is also to be raised this year to give boards further assistance in preparing the accommodations and equipment for the new scheme of distributing the Legislative and County grants. Former Regulations have always provided for a minimum equipment for every Public School; but in many instances they have been insufficiently complied with, to the great disadvantage of education. The minimum prescribed in Circular 33, is necessary for a modern programme taught by modern methods, and for every school under the improved conditions of education to which we hopefully look forward. Moreover, in a few years, Boards will be recouped for their present expenditure by the minimum grant to which each school which provides the equipment will be entitled under the Public Schools Act. Circular 33 also gives the details of the different items of accommodations, and a large proportion of the Legislative and County grants will be distributed on this basis. Those Boards, accordingly, that have followed the recommendations of the circular will next July

meet with their reward. (Circular 33 and instructions, No. 12, may be obtained on application to the Public School Inspector).

To increase the efficiency of the teachers, the Government is also providing an improved system of professional training in the form of three additional Normal Schools for old Ontario and one for new Ontario, at a capital cost of more than \$250,000, and an increase of the yearly expenditure for maintenance of more than \$60,000. With the addition of a Faculty of Education in the Provincial University, which has now been arranged for, we shall have, in a couple of years, a complete and modern system of training for all grades of teachers. The new scheme of professional training will provide for two main grades of Public School teacher certificates, First Class and Second Class. The work for First Class Teachers and High School Assistants will be taken up in the new Faculty of Education in Toronto University; that for Second Class in the reorganized Normal Schools. It is, however, intended to provide in addition for the less advanced counties in Old Ontario and the poorer parts of the districts, teachers with qualifications corresponding to those of the old Third Class certificates (Primary non-professional). The professional work for these certificates will be taken up in a few Model Schools which will be retained for the purpose and made thoroughly efficient. Such certificates will, of course, be confined to the counties and districts concerned, and it is hoped will gradually disappear.

But these improvements would be of little avail if we did not secure and retain competent men and women by providing adequate salaries. The experience of all other professions and of the trades has shown that the fixing of fees and wages cannot be left to the generosity of individual employers. Unlike the members of the other professions and the trades, our teachers are not permitted to manage their own affairs. Combinations and strikes among them would, therefore, be ineffectual. Moreover, as the Government is directly responsible for our educational system, combinations and strikes would be intolerated. In justice, therefore, to the Public School teachers, whose salaries have long been inadequate, the Government has been compelled to interfere, and, owing to the critical condition of affairs, to interfere without delay.

It is an acknowledged principle of taxation in a democratic community, that the rich should help the poor in any matter that concerns the interests of the whole community. On this sound principle have been based the County and Township levies for school purposes. As a result of last session's legislation, the County now gives at least the equivalent of the special grant of \$60,000, and the Township grant has been increased, according to the assessment, from \$150 to \$300 when the average assessed value of the Township is not less than \$30,000 per section. And further, after 1906, the latter grant must be applied to the teacher's salary, with an addition from section funds of from \$200 to \$25, according to the ability of the school board as measured by the value of the assessment. This addition, it should, however, be noted, is not necessarily a tax on the section; for the Government grant, and, in many cases, other sources of revenue, are available.

As regards minimum salaries, the effect of last session's legislation is as follows: Where the average assessed value of a township is equal to at least \$30,000 per school section and the assessed value of a section is at least \$200,000, \$150,000, \$100,000, \$50,000, \$30,000 or below \$30,000, the minimum salary respectively payable to a principal teacher would be for the whole year \$500, \$450, \$400, \$350, \$325, or \$300,

and, in any case, for each assistant, \$300. If, however, the average assessed value of the township is less than \$30,000 per section, the township grant is still \$150, and the minimum salary payable a principal teacher would vary, as above, from \$350, where the section assessment is \$200,000 to \$150, where it is less than \$30,000; and for every assistant teacher employed the whole year the minimum would be \$200.00. From this it is clear that the poorer sections in townships where the average section assessment is less than \$30,000, are not yet so well situated financially as are the poorer sections in other townships; and it is equally clear that they and other needy sections must now be helped either by legislation or by special legislative grants, or by both.

An important effect of the recent legislation is, what has long been urged, a fair approximation to an equalization of school taxation. It is manifestly unfair that Jones who lives on one side of the road should pay two or three times as high a rate on the dollar to maintain his school, as does Smith who lives on the other side, simply because Smith lives in the wealthier section. And further, had the Government simply provided the \$300 township grant without attaching the condition of a minimum local addition, many sections, well able to pay more, would, undoubtedly, make \$300 the maximum of the teacher's salary.

Having regard, therefore, to the requirements of the public service, the plan adopted is as fair a one as could be devised. Moreover, the principle of minimum salaries had the unanimous support of both sides of the Legislature at its recent session. True, the richer sections help the poorer ones; but there is nothing exceptional in this. A man's ability to pay is the basis of our system of taxation, and the claims of the commonwealth are superior to those of the individual.

V. OBJECTIONS CONSIDERED.

Naturally enough, these changes have in some quarters provoked opposition. The following are the chief objections:

(1) "Well qualified teachers should have been provided before Boards were called upon to increase salaries."

Even for the teachers we now have, the salaries are often absolutely and relatively too low, and, what is more directly to the point, teachers could not be induced to double the cost of their professional training, as will be required by the new Normal School system, if they had not the assurance of fair salaries after completing their course. The improvement—the immediate improvement—of the teachers' salaries is the key to the situation.

(2) "Instead of coercing boards to give higher salaries, moral suasion should have been applied in the form of a campaign of education."

The condition of affairs has been shown to be critical; and, while a campaign of education is desirable under any circumstances and is now being conducted under instructions from the Government by Public School Inspectors and others, such a campaign would take too long to remedy the present serious evils, even if—which is most unlikely—it succeeded in the end in doing so generally.

(3) "The qualifications of the teacher should have been taken into account in fixing the minimum salary."

Experience has shown that if the salary offered is adequate, applicants with the required qualifications will present themselves. Besides, it is the

intention of the Education Department to prescribe the qualifications for different grades of school. Before long it will be impossible for a teacher with a low grade certificate to hold, as he now may, the principalship of the most important Public School in the Province.

(4) "Some sections with a small school attendance and a high assessment must pay a high salary."

A small attendance is just as much entitled to a good teacher as a large attendance, more especially as the school tax is on property which is well able to pay it without an exceptional increase of the rate. Besides, under the Public Schools Act, one section may unite with an adjoining one, or a section may close its school and pay fees for the admission of its children to the school of an adjoining section. If, indeed, the recent amendments to the Act leads to the establishment of consolidated schools, their existence will have been amply justified even on this ground alone.

(5) "Urban municipalities have not been included in the scheme for increasing the salaries of Public School teachers. The farmers have been singled out by this special legislation."

The statistics showing the grades of teachers employed and the salaries paid in the urban and rural municipalities demonstrate the fact that it is rural municipalities that need special and prompt legislation. Nor should the fact be overlooked that, while the Legislature has singled out the farmers for this special taxation, it has also, singled them out already for a special legislative school grant of over \$70,000 and has given all the sections a county grant and most of them a doubled township grant. Moreover, the Government does not take the ground that last session it did all it intends to do in carrying out its pledge to make the Public Schools its first and chiefest care. It is true, however, that some urban boards pay too small salaries, and that many are poorly equipped. It will, accordingly, be necessary to propose legislation on this subject when the Public Schools Act is consolidated.

(6) "The course taken of coercing school boards is exceptional and offensive."

As has already been made clear, even if the recent action of the Legislature in prescribing minimum salaries were a drastic one, the present condition of affairs would justify it. Moreover, all laws are based on coercion and are made for the good of the community. It may here be pointed out that the only other effective course open to the Education Department would have been to raise the standard of the qualifications, and to restrict the supply of teachers. This course would have forced salaries up, but it would have been coercion indeed—coercion, moreover, applied without regard to the necessities of the schools, which necessities the Education Department is bound to consider. It may be pointed out also that except in the matter of fixing a minimum salary, the Education Department has interfered in no way with the responsibility of School Trustees.

But the mandatory feature of the recent school legislation is not an exceptional one; it is simply an extension of what has been long applied in similar cases;

(a) The salaries of ordinary civil servants are fixed and paid by Government.

(b) Those of semi-civil servants are fixed where part is paid by the Government and part by the locality; *e.g.*, Public School Inspectors.

(c) Those of semi-civil servants are fixed where the whole salary is paid by the locality; *e.g.*, Police Magistrates.

(d) Those of semi-civil servants who are paid by fees are also prescribed by a scale of fees ; *e.g.* Local Registrars.

The teacher is also a semi-civil servant ; for the Government prescribes his qualifications, restricts his liberty of action, and even contributes towards his salary. In view, accordingly, of the importance to the state of an efficient school system, the state is bound to protect him when it is shown that he is suffering an injustice.

Moreover, the principle of minimum salary is applied in other cases. In the Church, where, unfortunately, the conditions resemble those of the teaching profession, three denominations have established minimum salaries—the Presbyterians, \$800 and a manse for married men and those with relatives dependent on them ; for others, \$750 : the Methodists, for married men, \$750 ; for single men (ordained), \$600 ; and for probationers, \$400 : and the Baptists, \$750. And, as is well known throughout the Province, the various trades unions take forcible and effective means to secure proper wages.

Nor is a scheme of minimum salaries a novelty in education : In some of the States of the Union—in Mississippi, Indiana, Maryland, West Virginia, and even in the rich commonwealth of Pennsylvania—where conditions similar to ours have prevailed, the minimum salary plan has been established. In Indiana, a penalty not exceeding \$100 has been fixed for each violation of the minimum salary law. The State Superintendent of Pennsylvania writes that the plan has been successful, and that salaries have gone up, although fears were entertained at first to the contrary. The State Superintendent of Indiana also writes that the law is working satisfactorily to the people, and that it is hoped that, at its next session, the Indiana legislature will increase the salaries above those prescribed by the present law. In British Columbia, where the minimum salary is \$600, and in Germany, where the teacher is an honored civil servant, the salaries are paid by the Government from the general rates. Twenty years ago, when the condition of our now prosperous High Schools resembled the present condition of our rural Public Schools, and when the legislative grant was a far more important element in the annual expenditure than it now is, the Boards were compelled to expend in teachers' salaries at least the legislative grant and the county equivalent. And further, it is well known that the remarkable growth and exceptionally efficient condition of the High Schools are largely due to a system of Departmental coercion which has for years been strenuously applied. The Province is proud of the prosperity and efficiency of its High Schools ; no one now regrets the means taken to secure it.

Anything that savours of coercion is naturally offensive to a free people ; but British subjects have always been law-abiding when their reason has been convinced. When Dr. Ryerson succeeded in making the Public Schools free, he encountered, for a time, the bitterest opposition, and then also the opponents of the reform cried "Coercion." No one now doubts the wisdom of his course. There has, it is true, been some opposition to the minimum salary scheme of the present government, but it is to the credit of the people that it has been comparatively slight, and chiefly where the scheme and its causes have not been understood. Reports from inspectors are, with few exceptions, decidedly favourable ; and the following from an inspector who has experienced some opposition, may be taken as an evidence of the general situation :—

"The beneficial effects of the recent School amendments are felt even now :

(a) More Normal trained teachers have been engaged since mid-summer in this inspectorate than ever before.

(b) For the first time in the history of the Townships none but Normal trained teachers have been employed.

(c) Many teachers, natives of the county, are coming home to teach from the west, owing to the prospect of fair salaries.

(d) Schools that have always engaged a cheap teacher, who was usually a poor teacher, are now engaging Normal trained teachers at a fair salary.

(e) There are about ninety students in training at the Model Schools in the county. About thirty or forty of them are young men.

The most pleasing feature to me is this:—I have some excellent teachers in poor school houses. Before this law was passed, had the Trustees offered to build a new school house, the people of the section would have brought such pressure to bear on them that they would have had to engage a cheap teacher until the school house was paid for. Now they can build and retain a good teacher. I am getting four new school houses already and expect three more."

I now commend to the earnest consideration of the Province the scheme above set forth for the improvement of our Public Schools, as being an equitable and workable solution of a difficult problem. Experience will, no doubt, show where amendments may be made, and I shall be glad to receive suggestions on the subject. It is, however, only reasonable that a fair trial should be given a solution which meets our most pressing difficulties and which has been well received by Educationalists and by the general public.

EDUCATION DEPARTMENT,
NOVEMBER, 1906.

R. A. PYNE,
Minister of Education.



NOTICE TO SCHOOL TRUSTEES IN REGARD TO MAPS AND CHARTS.

Whereas it has been brought to the notice of the Educational Department of Ontario that Agents of Map and Chart Publishers are going about the country, particularly among the rural schools, and in the back townships, representing that the particular series of maps or charts published by their firm is recommended and authorized for schools by the Department; and even in some cases forcing their sale upon trustees by threats of withdrawal of the Government grant in case of refusal to purchase.

The Minister of Education wishes it made widely known by means of this notice that any and all such representations are untrue and misleading, and that he has not authorized, or approved, of or even recommended any particular kind, set or series of maps or charts, or other school appliances, for the use of the Province; and, further, that school trustees are left free by the Department to purchase the school appliances, needed under the Regulations of the Department, of such a kind or quality as they, acting, if need be, under the advice of the Teacher or School Inspector, may deem most suitable for the wants of their school.

EDUCATION DEPARTMENT,

TORONTO, February 27th, 1896.



EXAMINATIONS.

INSTRUCTIONS TO PRESIDING OFFICERS, 1909.

Presiding Officers are requested to peruse carefully the following instructions and see that they are fully carried out:—

1. Each Inspector or such other person as may be appointed a Presiding Officer by the Minister, shall receive from the Department or the Inspector, the examination papers, and shall thereupon be responsible for the safe keeping of the bag and its contents until the examination is concluded.
2. On the receipt of the bag containing the question papers the Presiding Officer will see that *the seal is intact*. The bag can be opened by cutting the cord, and when opened the names and numbers of the envelopes containing the question papers should be verified with the time-table. Should any question envelopes be missing, *telegraph the Department at once*.
3. The Presiding Officer will satisfy himself that all necessary arrangements are made by the School Board in due time for the examination. If the trustees have not placed a clock in each room used for examination purposes the Presiding Officer shall have power to hire the use of one for each room during the time required for the examination, and charge the same as part of the expenses of the examination.
4. The Presiding Officer shall, if there is sufficient accommodation and if sufficient papers have been received, admit candidates who through some oversight did not send their applications to the Inspector. The names of such candidates are to be entered in the Supplementary List, (Form No. 181), specially provided, with such information as is required of the other candidates. This list and the required part of the fee with one dollar additional as provided, shall be sent by the Presiding Officer to the Department. The remainder of the fee shall be sent to the Board that bears the expense of the examination.
5. The Presiding Officer shall exercise necessary vigilance at all times while the candidates are engaged, and he *shall not give his attention to any work other than that which pertains to his duties as Presiding Officer*. He shall take all necessary care to *render it impossible for the instructions to candidates to be violated without his knowledge*. This instruction (5) is to be observed, *however small may be the number of candidates*.

6. It is IMPERATIVE that the regulations be enforced by the Presiding Officer and strictly observed by the candidates. In particular, the examination papers shall be distributed, and the answer papers collected, *punctually* at the time indicated on the time-table. The Presiding Officer has no authority to deviate from the official time-table.

7. In the examination room, candidates, whether writing on the same subject or on different subjects, shall be seated at least five feet apart. All diagrams or maps having reference to the subject of examination shall be removed from the room, and books, papers, etc., removed from the desks; all arrangements shall be completed, and the necessary stationery distributed at least *fifteen minutes* before the time appointed for the commencement of the first subject of the examination, and at least *five minutes* before each other subject is begun.

8. The necessary stationary includes pens, blotting-paper, black ink of a uniform colour, and the authorized examination answer books. Each candidate will receive *one* examination-book and *one* answer-envelope at the *beginning of each examination period* and other books as required during said period. No paper other than the examination-book must be distributed to the candidates, and no paper, examination-book or other book must be brought into the room by any candidate. (The Presiding Officer's attention is called to the instructions as to the use of the examination-books on the first page thereof.)

9. No person except the Presiding Officers and any necessary attendants shall be present with the candidates in any room at the examination; and at least one Presiding Officer shall be present during the whole time of the examination in each room occupied by the candidates. A Presiding Officer shall not have in his charge at one time more than *twenty-five* candidates.

10. The Presiding Officer shall, as indicated on the time-table, read to the candidates their duties, drawing attention to any feature of them that may require special care during the examination, and emphasizing the directions to the candidates as to the manner in which the slips are to be attached to the envelopes. **Great care should be taken in distributing the proper number and kind of envelopes** and examination-books and in accounting for such envelopes and examination books as have been distributed. (Also see (3) (a), page 6.)

11. *Punctually* at the time appointed for the commencement of each examination, the Presiding Officer shall, in the examination room and in the presence of the candidates and other assistant Presiding Officers (if any), break the seal of the envelope containing the question papers, and give them to the assistant officers and to the candidates. The papers of only the subject or subjects required shall be opened at one time. Until the examination in the subject is over no examination papers other than those which the candidates receive, shall be taken out of the room.

12. *Punctually* at the expiration of the time allowed, the Presiding Officer shall direct the candidates to stop writing, and cause them to hand in their answer papers *immediately*, duly fastened in the envelopes.

13. The Presiding Officer shall keep upon his desk the tally-list (check-list of candidates and subjects) and as each paper in any subject is handed in (and he should carefully note the superscription of the

envelope—the subject and the candidate's name) he shall check the same by entering the figure "1" opposite the name of the candidate. The Presiding Officer will enter the names of the candidates on the tally-list *in the same order as found on the official list of candidates* (Form 44). The names of extra candidates are to be added after the names of those on the official list. After the papers are handed to the Presiding Officer he shall not allow the answer-envelopes to be opened, and he shall be responsible for their safe keeping until transmitted to the Department. The answer-papers as well as the question-papers should be kept in a safe, or in a room with the windows fastened and doors securely locked by a cylinder lock.

14. For special instructions regarding the examinations in Stenography, Biology, etc., see the circular which is forwarded to each Presiding Officer prior to the examination.

INSTRUCTIONS TO CANDIDATES.

(To be read to candidates as indicated on time-table.)

1. Each candidate shall satisfy the Presiding Officer as to his personal identity before the commencement of the first day's examination, and any person detected in attempting to personate a candidate shall be reported to the Department. The Presiding Officer is authorized to refuse the application of any candidate who presents himself at any centre other than that nearest his usual place of residence, unless the candidate's explanation of his course in so presenting himself is in every way satisfactory to the Presiding Officer.

2. Candidates shall be in their allotted places before the hour appointed for the commencement of the examination. If a candidate be not present till after the appointed time, he shall not be allowed any additional time. No candidate shall be permitted, on any pretence whatever, to enter the room after the expiration of an hour from the commencement of the examination. The Presiding Officer is authorized to refuse admission even within the hour if the candidate's explanation is in any sense unsatisfactory, or if he has reason to suspect collusion between the newly-admitted candidate and other candidates.

3. A candidate shall not leave the room within *one hour* after the distribution of the examination papers in any subject; and if he then leave he shall not be permitted to return during the examination on such subject.

4. Every candidate shall conduct himself in strict accordance with the instructions. Should he violate the instructions to be found in sections 5 and 6 below or on the first page of the examination-book; should he take into the room or have in his possession, in his desk, or on his person, any book, notes, paper, or anything from which he may derive assistance; should he talk, whisper, or make signs to another candidate; *should he leave his answers so exposed that any candidate may copy from him*; should he give or receive aid or extraneous assistance of any kind whatsoever, his examination will be cancelled and he will be debarred from presenting himself at any Depart-

mental examinations for two years. Should the Presiding Officer obtain clear evidence of the violation of these instructions at the time of its occurrence he shall cause the candidate concerned at once to leave the room; he shall strike his name from the list of candidates; and he shall not permit him to return to the room during the remaining part of the examination. If, however, the evidence be not complete at the time, or be obtained after the close of the examination, the Presiding Officer shall report the case to the Department.

5. Every candidate shall write the name of the subject of examination very distinctly at the top of each page of his examination-book. If he write his name or any distinguishing mark on his examination-book, or if he tear any paper from this book, or if he insert in this book any matter not pertinent to the examination, or if he use any paper or book or ink other than that provided, his examination may be cancelled.

6. The candidate shall write his answers and full solutions on the ruled sides of the leaves of his examination-book or books (if more than one be needed); he may use the unruled sides in preparing the answers in rough. He shall fold his examination-book (or books) once across, place it in the envelope provided by the Presiding Officer, seal the envelope, write on the outside of the envelope the subject of examination only, and on the slip provided, his name in full (surname preceding), and then securely fasten the slip to the envelope, as instructed by the Presiding Officer. Candidates should see that their answers are placed in the proper envelopes. Scholarship candidates should designate their answers, and also the envelopes containing their answers, "Pass" or "Honour" according to the papers taken.

Every candidate competing for a scholarship, who also desires standing for Entrance to the Faculties of Education, must write upon all the subjects of this Entrance course which are not included in his scholarship examination. He must place the answers in his scholarship subjects in the scholarship (red) envelopes, and the answers in the Entrance subjects in regular Entrance envelopes.

7. Candidates for the examinations for Entrance to the Normal Schools or the Faculties of Education who take extra Matriculation papers for the *purpose of Matriculation standing*, should place the answers to such extra papers in Matriculation envelopes and the Presiding Officer shall enter their names (if this has not already been done) on the matriculation tally-list. Such extra matriculation papers are to be returned to the Department along with the answers of the regular matriculation candidates. *Parts A and B of the Matriculation History and Experimental Science papers are to be put in separate envelopes.*

8. Candidates are also reminded that the Presiding Officer is not allowed to make any *explanation* or other statement regarding the probable meaning of any question or to *give any advice* as to what question should be answered by the candidates or how any question should be answered.

Should any error appear to have been made in any question, *no attention* shall be drawn to it during the time of examination by either the Presiding Officer or any of the candidates. Candidates may, however, at the end of the examination period submit the matter to the Presiding Officer, who, if he considers it necessary, will report on the matter to the Department at the close of the examination.

9. In case of the illness of any candidate during the examination, the Presiding Officer should report full particulars to the Department *immediately at the close of the examination* and his report should be accompanied by a *medical certificate*, stating precisely the nature of the illness, and the time and duration of its occurrence. Certificates received after this date will not be considered by the Board of Examiners when determining the results of the examination.

To be read to candidates by the Principal previous to the examination.

1. Candidates should see that they use the correct answer-envelopes as follows :

(a) Model School Entrance candidates use the manilla envelopes designated "Entrance to Model Schools."

(b) Normal School Entrance candidates use the manilla envelopes designated "Entrance to Normal Schools."

(c) Faculty Entrance candidates use the manilla envelopes designated "Entrance to the Faculties of Education."

(d) Pass (junior) Matriculants use the white envelopes designated (in red ink) "Junior Matriculation."

(e) Honour (senior) Matriculants use the envelopes designated "Honour Matriculation."

(f) Scholarship candidates use the red envelopes designated "Matriculation Examination (Scholarship)," for all their matriculation papers whether pass or honour.

(g) Commercial Specialist candidates use the manilla envelopes, designated "Commercial Specialist Examination."

(h) Candidates for more than one of the above examinations will place their answers for the different examinations in the respective envelopes as indicated above.

2. Scholarship candidates who desire standing for Entrance to the Faculties of Education should not make application therefor until after the scholarship results are made known.

3. The Department does not furnish statements of the matriculation standing obtained by scholarship candidates, either for *pass* or *honours*.

4. As certificates for Entrance to the Normal School or to the Faculties of Education are accepted *pro tanto* for matriculation purposes, matriculation certificates covering the subjects included in the former certificates are not issued.

5. Cases of illness during the examination should be reported by the Presiding Officer to the Department *immediately at the close of the examination* and should be accompanied by a *medical certificate* stating precisely the nature of the illness, and its time and duration.

6. The answer papers of all candidates are read carefully by boards of Associate Examiners selected from the successful teachers of the Province. All papers on a subject are valued according to a uniform scale of marks decided upon by the Examiner-in-chief in consultation with the section of Associate Examiners in charge of that subject. Every paper which is valued near the pass mark by an Associate Examiner is re-read by the chairman of the section.

After the results are made up from the marks thus assigned, the papers of all candidates for Model, Normal and Faculty Entrance examinations who have failed by not more than a reasonable margin in any way will be immediately re-read by the Examiner-in-chief. Candidates who have still failed on this supplementary reading will receive statements of marks endorsed with the word "Re-read." No further appeal will be allowed in such cases.

In addition to the precautions outlined above, the addition and transferring of marks will be carefully checked on all answer papers by a competent staff of clerks.

No appeal is allowed in case of scholarship candidates.

In all other cases of failure where the statements of marks are not endorsed as "Re-read," an appeal will be allowed if desired. In view of all the precautions taken, however, an appeal on any of the Entrance examinations would seem to be useless.

7. Pupils making appeals must state where they wrote and the examination attempted. Principals sending in appeals in behalf of students should make *each appeal on a separate sheet of paper*. The fee is \$2, which is refunded if the appeal is sustained.

8. Any candidate who is prevented from attending the examination for which he applied, may have his fee refunded by applying to the School Board or other body that bears the expense of the examination for that part which it receives and to the Department for that part which it receives.

9. Candidates who do not make application until the day of examination are charged \$1 extra.

MAKING REPORTS AND RETURNING ANSWERS TO THE DEPARTMENT.

1. The Presiding Officer shall report to the Department at the close of the examination in the "remarks" column of the Diagram Blank (Form 292) any particulars in which the instructions, etc., were not observed and he shall mention any facts regarding the examination that he deems expedient to have brought before the Boards of Examiners. The Presiding Officer and his assistants shall sign a declaration that in all other respects the instructions and regulations were fully complied with.

2. The Presiding Officer, as part of his report to the Department, shall send a diagram of *each room* on the forms provided (Form 292), showing the position occupied by each candidate and Assistant Presiding Officer during the examination. *Candidates shall not be permitted to change positions.*

3—(a) The Presiding Officer shall not arrange the answer-papers according to subjects, but shall arrange them so that all the answers of each candidate for examination shall be sent together [except as specified in (b)] and in the order in which their names appear on the list of candidates for the Examination. (Form 44.) To facilitate this, elastic bands have been supplied, one for each candidate's set of answers.

(b) Where a candidate takes papers belonging to different examinations, such papers are to be divided according to the examinations taken and each parcel sent with those of the other candidates for these

examinations, except that all the pass and honour matriculation answer-papers written by a *scholarship candidate* should be placed in red envelopes and returned in one parcel at the close of the Scholarship examination, and such papers should be checked upon the scholarship tally-list.

4. The prompt return of the answers to the Department at the close of the respective examinations is essential, and may be greatly facilitated if the answers are sorted at the close of each day's examination. All diagrams and reports (*except the tally-list*) should be forwarded to the Department *by post* on the respective days that the answers are forwarded. The tally-list of each examination must be returned in its respective bag with the candidates' answer-envelopes.

5. The answers of the candidates taking the examination for Entrance into the Model Schools, together with the corresponding tally-list, shall be returned securely tied, at the close of this examination, in one of the bags provided.

6. The answers of the candidates for (a) the examination for Entrance into Normal Schools and (b) the Commercial Specialists' examination, together with the corresponding tally-lists, shall be returned in separate parcels, at the close of these examinations, in one of the bags provided.

7. The answers of the candidates for the examination for (a) Junior Matriculation, (b) Entrance into the Faculties of Education, (c) Honour Matriculation, and (d) Scholarships, together with the corresponding tally-lists, shall be returned in separate parcels, securely tied, at the close of those examinations, in one of the bags provided.

8. —(a) Each bag shall be so folded and tied that the words, "The property of the Education Department," will be outwards. The shipping tag should be securely attached to the strap on each bag.

(b) All the express charges *must be prepaid*, and no commercial value should be placed upon the bags and contents.

(c) All surplus examination papers may be given at the close of the examination to the Principal of the school.

(d) All surplus answer-envelopes and name slips should be returned to the Department in one of the bags containing candidates' answers.

EXPENSES OF THE EXAMINATION.

The Treasurer of the High School Board or of the Public School Board of the school where the examination is held shall pay, on the certificate of the Public School Inspector, all the expenses of the examination, which shall include the following:

1. For preparing the list of candidates, the Inspector shall be entitled to the remuneration of \$2.00, providing that the number of the candidates writing does not exceed twenty. For each additional twenty candidates or fraction of that number the Inspector shall be entitled to an additional dollar. It is to be understood that the number of applications received, and not the examinations on which candidates write, will determine the amount paid for this service.

2. For conducting the examination each Presiding Officer and each Assistant Presiding Officer shall be entitled to \$4.00 a day and railway fare or the ordinary cost of conveyance.

3. For meeting the incidental expenses of the examination, the cost of stationery, etc., and the payments for any additional services required during the examination.

GENERAL INFORMATION AND INSTRUCTIONS.

1. The examination fees are:—Examination for Entrance into the Model Schools, \$5; examination for Entrance into the Normal Schools, \$5; examination for Entrance into the Faculties of Education, Part I. or Part II., each \$3, taken together, \$5; if this examination be divided as provided in Circular 19 of 1908, sec. 5 (2), \$3 for each part; examination for Commercial Specialists, \$5; examination for Junior Matriculation, \$5; Honours or Scholarship Matriculation, \$5; for candidates taking not more than *four* papers (not subjects) for the purpose of completing Matriculation standing, \$2; for more than four papers, \$5. If the fees for the examination which a candidate desires to take amount to more than \$5, only \$5 will be required.

Attention is directed to the scale of fees to be paid by candidates. When the fee is \$5, \$3 or \$2, the amount to be sent to the Department is \$3, \$2, or \$1 respectively. The remainder of the fees received is to be forwarded to the School Board or other body that bears the expenses of the examination.

2. Applications will not be received by the Inspector after the 24th day of May, and candidates are reminded that they should in no case forward their applications to the Department. If the candidate should, through an oversight, neglect to have his application duly sent to the Inspector, he may present himself at the examination, when the Presiding Officer is at liberty to admit him, provided there is the necessary accommodation, and that a sufficient number of question-papers has been forwarded. An additional fee of \$1 will be exacted by the Presiding Officer from a candidate who presents himself in this way.



Memorandum for Inspectors and Presiding Officers.

RE MIDSUMMER EXAMINATIONS, 1909.

HONOUR MATRICULATION AND SCHOLARSHIP.

Presiding Officers are reminded that all the pass and honour matriculation answer papers written by a *scholarship candidate*, should be returned in one parcel at the close of the Scholarship examination, each in its own particular kind of envelope; his name should be entered and all his matriculation papers should be checked upon the special Scholarship tally list.

If a scholarship candidate is also a candidate for entrance to a Faculty of Education his answer papers in the additional subjects for this latter examination should be placed in the Faculty Entrance (*manilla*) envelopes, checked on the Faculty Entrance tally list, and returned in one parcel along with the answer papers of the other Faculty Entrance candidates.

PRACTICAL EXAMINATION IN BIOLOGY.

Candidates for Honours or for Scholarships who include Biology in their course will have practical work. The material for this work will be forwarded in due time from the Department of Education and will consist of two plants, a microscopical section, and an animal.

ZOOLOGY.

Give out the Zoology paper with the animal at 9 a.m.

The animal is furnished in weak alcohol, and is to be examined by the candidates in the water of their dissecting trays.

If by any defect in the arrangements for the examination, the candidates are without dissecting dishes, in which water may be provided, all the material, animal and vegetable, furnished in bottles, is to be soaked for ten minutes in water before distribution.

The bottles and boxes used for the conveyance of the material for the examination are to be returned to the Department of Education.

BOTANY.

Give out Part A of the Botany paper with the plant designated A at 1.30 p.m. The plant A is to be identified by means of the flora. Thirty minutes are to be allowed for this operation. Then the text-books are to

be taken from the candidates, and Part B of the Botany paper with the plant designated B and the microscopic section distributed. Each candidate is to be allowed the use of a compound microscope for thirty minutes during this second period.

The plant is delivered in weak alcohol and in bottles. The candidates are to receive these specimens in water in their dissecting trays, that they may not become dry before examination. *This is important.*

The plant B is also provided in alcohol and is to be studied *in water*.

APPEALS.

Entrance to Model Schools, Normal Schools, Faculties of Education, and Matriculation Examinations.

In the case of the Model Schools, all appeals must be forwarded to the Minister of Education *not later than August 7th*, and, in the case of all other examinations, *not later than September 1st*, in order that the appeals may be settled before the opening of the respective schools.

Each appeal should be made on a separate sheet of paper, the full name of the candidate with the name of the examination centre at which he wrote should be clearly stated, and the required fee of \$2 enclosed. Careful attention to these particulars will greatly aid the Department in having the results of the appeals announced at an early date.

In view of all the precautions taken, (see Instructions No. 5) there is but little use in appealing unless there is very strong reason to believe that a mistake has been made.

MEDICAL CERTIFICATES.

Medical certificates which are not sent in at the proper time are not considered when settling results. (See Instructions No. 5, page 5 (9).



DUTIES OF THE REGISTRAR.

1. The Registrar of the Advisory Council shall preside, as Chairman, at all meetings of the Board of Examiners, or of any committee thereof, and shall furnish all necessary information. All cases of dispute at meetings of the Board or its committees shall be settled by a majority of the Examiners. In case of a tie the Chairman shall have the casting vote.

2. During the reading of the answer papers the Registrar shall see that the instructions to Associate Examiners hereinafter outlined are observed; and, except where it is in his judgment absolutely necessary to disclose the candidate's name or examination centre, he shall so deal with all correspondence that the identity of the candidates shall be disclosed to neither the Examiners nor the members of the Advisory Council. He shall assign a pseudonym to each Associate Examiner and shall have power, in case of necessity, to transfer Associate Examiners from one section to another.

3. He shall exercise a general supervision over the printing and distribution of the question papers, and over the sorting, numbering and otherwise preparing the envelopes containing the answers, so that the answers may be conveniently read by the Examiners and Associate Examiners; he shall have charge of the reading of the answer papers, and, after the reading, he shall superintend the entering of the marks in the books by the clerks of the Department and the preparation of the results so that they may clearly indicate the subjects in which candidates have passed or failed.

4. He shall take the necessary steps in order that appeals may be read as speedily as possible.

DUTIES OF EXAMINERS.

5. Each Examiner shall be required to discharge all duties pertaining to his office, and no duty which an Examiner is appointed to perform shall be delegated to another Examiner without the approval of the Advisory Council. Each Examiner shall prepare the examination papers assigned to him within the limits of the courses of study for which they are prescribed, and of the authorized text-books.

6. The papers set for the Part II. Junior Teachers' and the Senior Teachers' examinations shall be prepared in accordance with the requirements of candidates desiring to become teachers.

7. In the prose composition papers in Classics and Modern Languages the vocabulary required shall be such as is found in the prescribed portion of text and text-book.

8. Each paper in a department shall be signed by each Examiner in the department, and shall be approved by all the Examiners in the department at a meeting held for the purpose before it is submitted to the Board of Examiners for consideration.

9. The Examiners, in the case of the Junior and Senior Teachers' and the Junior Matriculation examinations, shall be present at the beginning of the reading of the answer papers. Each Examiner shall discuss with the Associate Examiners in his section the character of the answers required by the question, and especially the value of incomplete or imperfect answers, so as to insure, as far as possible, uniform marking. In cases of differences of opinion on any point the decision of the Examiners shall be final; and, without the consent of the Examiner concerned, no Associate Examiner shall set aside any part of the agreement made as the result of this discussion. Any additional necessary allowance shall be made by the Revising Board on the report of the chairman of the section through the Registrar.

10. Such of the Examiners as may be appointed a Revising Board by the Advisory Council shall, after due consideration of all doubtful and special cases, make such reports as will enable the Advisory Council to settle the results of the examinations.

11. With such Associate Examiners as may be appointed by the Advisory Council, the Examiners shall also read the appeals and make, through the Revising Board, such reports as are provided for in 10 above.

12. The Examiners shall report to the Advisory Council the pseudonyms of all Associate Examiners whose work appears to have been performed with marked carelessness or incapacity, or who have shown any substantial disregard of the instructions of the Advisory Council.

DUTIES OF ASSOCIATE EXAMINERS.

13. The Associate Examiners shall be classified into sections according to the subjects of examination, and a chairman shall be appointed in each section by the Registrar. The chairman of each section shall have a general oversight of the work done in his section, and shall see that the regulations are carried out *and that the marking is uniform*. He shall also report to the Revising Board, through the Registrar, any matters that require its attention. In the case of an emergency, as in the absence of a chairman of a section, the Registrar shall appoint a chairman *pro tempore*.

14. An Associate Examiner shall not have in hand more than ten papers at one time, nor shall he have more than one envelope open upon his table at one time, and he shall return each examination book to its proper envelope. As soon as an examination book is removed from its envelope the candidate's number shall be placed on the front page of the book. *The envelopes, with their enclosures, must be returned in the numerical order in which they are received*. In cases of suspected copying the Associate Examiner shall note on the face of the envelope, "Copying, see No., question," and through the chairman

of the section report the case at once to the Registrar. In such cases the Associate Examiner and the chairman of the section shall make a detailed report of the grounds of suspicion.

15. In the case of the papers in *English Grammar, Literature, and Composition*, one mark shall be deducted for each mis-spelt word and one mark for each instance of incorrect English. At all examinations in Arithmetic, either arithmetical or algebraical solutions shall be accepted.

16. In reading the answer papers each Associate Examiner shall mark distinctly in the left hand margin the value assigned by him to each answer or partial answer, shall place the total on each page at the foot of the margin and enter this total at the top of the next page; he shall place the result on the face of the envelope, indicating in the case of the papers in *English Grammar, Literature and Composition*, the deduction for mis-spelt words and incorrect English thereon, thus, *e.g.*, Grammar, 80 — 2 sp. — 4 f. s. = 74. He shall also sign his pseudonym on the envelope of each examination book examined.

17. Associate Examiners shall be in their respective places so that the reading may commence promptly at the time specified, viz., 9 a.m. and 2 p.m., and no Associate Examiner shall stop work before the hours of closing, viz., 12 noon and 5 p.m., without reporting to the chairman of the section and obtaining his consent.

18. Associate Examiners shall refrain from all unnecessary conversation or other causes of disturbance and shall devote themselves strictly to the work of the examination; they shall keep a record of the papers read each day and shall report the results of their work to the chairman of their respective sections.

19. *They shall not at any time enter the rooms of other sections unless when it is necessary to do so in entering or leaving their own rooms, or when the sanction of the Registrar has been obtained.*

20. *The work is confidential throughout.* Should the identity of an examination centre or of any particular candidate be discovered by an Associate Examiner he shall report the fact without any delay to the Registrar, or, in his absence, to the clerk of committees, who shall change the Associate Examiner, or make such other arrangements as he may deem expedient.

21. The instructions herein contained so far as they relate to the examinations of the Education Department and matriculation into the University shall be subject to amendment from time to time with the approval of the Education Department and of the Senate of the University of Toronto.



DUTIES OF THE REGISTRAR WITH RESPECT TO EXAMINATIONS.

1. The Registrar of the Department of Education shall preside, as Chairman, at all meetings of the Boards of Examiners, or of any committee thereof, and shall furnish all necessary information. All cases of dispute at meetings of the Boards or Committees shall be settled by a majority of the Examiners-in-chief. In case of a tie the Chairman shall have the casting vote.

2. During the reading of the answer papers the Registrar shall see that the instructions to Associate Examiners hereinafter outlined are observed. He shall assign a pseudonym to each Associate Examiner and shall have power, in case of necessity, to transfer Associate Examiners from one section to another.

3. As far as practicable he shall disclose to no one the name of the candidate or of his examination centre.

4. He shall exercise a general supervision over the printing and distribution of the question papers, and over the sorting, numbering, and otherwise preparing the envelopes containing the answers, so that the answers may be conveniently read by the Examiners-in-chief and the Associate Examiners. He shall have charge of the reading of the answer papers, and, after the reading, he shall superintend the entering of the marks in the books by the clerks of the Department and the preparation of the results so that they may clearly indicate the subjects in which candidates have passed or failed.

5. He shall take the necessary steps in order that appeals may be read as speedily as possible.

DUTIES OF EXAMINERS-IN-CHIEF.

6. Each Examiner-in-chief shall be required to discharge all duties pertaining to his office, and no duty which an Examiner-in-chief is appointed to perform shall be delegated to another Examiner-in-chief without the approval of the Minister or the University Matriculation Board, as the case may be. Each Examiner-in-chief shall prepare the examination papers assigned to him within the limits of the courses of study for which they are prescribed, and of the authorized text-books.

7. The papers set for the examinations for entrance into the Faculties of Education, the Normal Schools, and the Model Schools, shall be prepared in accordance with the requirements of candidates desiring to become teachers.

8. In the prose composition papers in Classics and Modern Languages the vocabulary and idioms required shall be such as are found in the prescribed authors and text-book.

9. Each paper in a department shall be signed by the Examiner-in-chief in that department, and shall be approved by the Board of Examiners at a meeting held for the purpose before it is submitted to the Registrar to be printed for distribution to the examination centres.

10. The Examiners-in-chief shall be present at the beginning of the reading of the answer papers. Each Examiner-in-chief shall discuss with the Associate Examiners in his section the character of the answers required by the question, and especially the value of incomplete or imperfect answers, so as to insure, as far as possible, uniform marking. In cases of differences of opinion on any point the decision of the Examiner-in-chief shall be final; and, *without the consent of the Examiner-in-chief concerned, no Associate Examiner shall set aside any part of the agreement made as the result of this discussion.* Any additional necessary allowance shall be made by the Revising Board on the report of the chairman of the section through the Registrar.

11. Such of the Examiners-in-chief as may be appointed a Revising Board shall duly consider and report upon all doubtful and special cases. They shall also decide the cases, if any, in which the answer papers shall be re-read by the Examiners-in-chief.

12. With such assistants as may be appointed for that purpose, the Examiners-in-chief shall re-read at the Department the papers of all Normal Entrance and Faculty Entrance candidates who fail by not more than a reasonable margin in any way. They shall also read the appeals and make, through the Revising Board, such reports as are provided for in 11 above.

13. The Examiners-in-chief shall report, through the Registrar, to the Minister and to the University Matriculation Board the pseudonyms of all Associate Examiners whose work appears to have been performed with carelessness or incapacity, or who have shown any substantial disregard of their instructions.

DUTIES OF ASSOCIATE EXAMINERS.

14. The Associate Examiners shall be classified into sections according to the subjects of examination, and a chairman shall be appointed in each section by the Registrar. The chairman of each section shall have a general oversight of the work done in his section, and shall see that the regulations are carried out *and that the marking is uniform.* He shall also report to the Revising Board, through the Registrar, any matters that require its attention.

15. An Associate Examiner shall not have in hand more than ten papers at one time, nor shall he have more than one envelope open upon his table at one time, and he shall return each examination book to its proper envelope. As soon as an examination book is removed from its envelope the candidate's number shall be placed on the front page of the

book. *The envelopes, with their enclosures, must be returned in the numerical order in which they are received.* In cases of suspected copying the Associate Examiner shall note on the face of the envelope, "Copying, see No., question.," and through the chairman of the section report the case at once to the Registrar. In such cases the Associate Examiner and the chairman of the section shall make a detailed report of the grounds of suspicion.

16. In the case of the papers in *English Grammar, Literature, and Composition*, one mark shall be deducted for each mis-spelt word and one mark for each instance of incorrect English. At all examinations in Arithmetic, either arithmetical or algebraical solutions shall be accepted.

17. In reading the answer papers each Associate Examiner shall mark distinctly in the left hand margin the value assigned by him to each answer or partial answer, and shall place the total on each page at the foot of the margin and enter this total at the top of the next page; he shall place the result on the face of the envelope, indicating in the case of the papers in *English Grammar, Literature, and Composition*, the deduction for mis-spelt words and incorrect English thereon, thus, *e.g.*, Grammar, 80—2 sp.—4 f. s. = 74. He shall also sign his pseudonym on the envelope of each examination book examined.

18. Associate Examiners shall be in their respective places so that the reading may commence promptly at the time specified, viz., 9 a.m. and 2 p.m., and no Associate Examiner shall stop work before the hours of closing, viz., 12 noon and 5 p.m., without reporting to the chairman of the section and obtaining his consent.

19. Associate Examiners shall refrain from all unnecessary conversation or other causes of disturbance and shall devote themselves strictly to the work of the examination; they shall keep a record of the papers read each day and shall report the results of their work to the chairmen of their respective sections.

20. *Associate Examiners shall not at any time enter the rooms of other sections unless when it is necessary to do so in entering or leaving their own rooms, or when the sanction of the Registrar has been obtained.*

21. *The work is confidential throughout.* Should the identity of an examination centre or of any particular candidate be discovered by an Associate Examiner, he shall report the fact without any delay to the Registrar, or, in his absence, to the clerk of committees, who shall change the Associate Examiner, or make such other arrangements as he may deem expedient.

22. The instructions herein contained, so far as they relate to the examinations of the Department of Education and to matriculation into the University, shall be subject to amendment from time to time with the approval of the Department of Education and of the Senate of the University of Toronto, respectively.



HIGH SCHOOL CADET CORPS.

CLASSES IN MILITARY INSTRUCTION.

In accordance with the provisions of section 10 of the High Schools Act, 1896, any High School or Collegiate Institute Board may establish classes in military instruction, and shall be entitled to an annual grant of \$50, under conditions detailed in the above section, and regulations as to examination and inspection prescribed by the Education Department.

In order that the conditions and regulations for the establishment of companies of High School Cadets might be in harmony with the military tactics sanctioned by the Militia Department, the Minister of Education submitted draft regulations to the Minister of Militia for his consideration. After consultation with the High School Inspectors and the officers of the Militia Department, the following regulations, which contain the conditions upon which the grant is to be paid, were approved:—

GENERAL.

1. High school cadet corps may be formed for instruction in military drill and training in the High Schools or Collegiate Institutes, but such corps shall on no account be employed in active service.

2. Application for permission to form a company shall be sent to the Minister of Education for Ontario for transmission to the Minister of Militia and Defence.

3. The following will be supplied to each company, free of charge, by the Department of Militia, on application through the Minister of Education:

(a) Breech loading rifles of the Snider-Enfield or other approved pattern with bayonet and scabbard complete.

(b) Accoutrements, consisting of a waist belt with ball-bag and bayonet frog.

4. The Board of Trustees shall make itself responsible by a written undertaking for the value of the arms and accoutrements to be entrusted to it, and shall return them in good order to the Department of Militia when required to do so.

5. The Board of Trustees shall provide a suitable room, fitted with lock-up arm racks, to be used as an armory, and shall satisfy the Department of Militia that the arms and accoutrements will receive proper care.

6. The company shall consist of not fewer than twenty-five young men, over sixteen years of age, actually attending the High School or Collegiate Institute.

7. On or before the first day of October, the Board of Trustees shall send to the Minister of Education, for transmission to the Department of Militia, a roll, signed by the then existing members of the company. On this roll shall be designated one suitable member of the company as captain, and two other suitable members as lieutenants. The Board of Trustees shall recommend from time to time other suitable persons to fill such vacancies as may occur in the list of officers, and shall maintain a company roll of not fewer than twenty-five members.

8. The Board of Trustees shall see that the members of its company are provided with a uniform forage-cap, or other military head dress, as may be preferred. If the rest of the uniform is provided, it may be composed of a scarlet, blue, grey, or rifle green tunic or Norfolk jacket, with blue, black, gray or rifle-green trousers. The uniform, or any part thereof, provided, shall be subject to the approval of the Minister of Militia. Clothing of any pattern worn by cadets or soldiers in foreign countries will not be approved.

9. The company shall be instructed in the course contained in the sections of the authorized Infantry Drill and Rifle Exercises detailed below. This instruction shall form part of the regular course in the High School or Collegiate Institute, and suitable days and hours shall be specified therefor in the regular time table of the school. Regular attendance and proper discipline shall be enforced by the principal of the school.

10. The Board of Trustees shall permit the inspection and examination of the arms and accoutrements, and of the cadet company, at any time, by any officer who may be detailed for that duty by the Minister of Militia.

QUALIFICATION OF INSTRUCTORS.

11. The instructor of each cadet company shall be a regular member of the High School or Collegiate Institute staff, holding at least either a second class B military school certificate or a High School cadet instructor's certificate.

COURSE OF INSTRUCTION.

12. The course of instruction to be taken up by each company of the Ontario High School Cadet Corps shall be as follows :

Infantry Drill, 1896:—

Part I. Squad Drill, sec. 1 to 45. Physical Drill, with arms, 16, 1st, 2nd, 3rd and 4th, practices by numbers and judging the time. Extended order, sec. 47 to 57,

Part II. Company Drill, sec. 58 to 75.

Part IX. Ceremonial, sec. 181 to 183.

Rifle Exercises :—

Manual Firing and Bayonet Exercises for Canadian Militia, 1894.
Manual Exercise for Short Rifle, page 23, Parts I, II, and III.

INSPECTION AND EXAMINATION OF COMPANIES.

13. In May or June of each year, an officer, detailed for this duty by the Minister of Militia, shall examine and inspect each company and its arms and accoutrements, and shall report the result to the Adjutant General of Militia. On the report of the Minister of Militia to the Minister of Education for Ontario, that such inspection and examination have been satisfactory, the Minister of Education shall pay the sum of \$50 for the current year to the Board of Trustees concerned.

HIGH SCHOOL CADET INSTRUCTOR'S CERTIFICATES.

In order to afford High School Teachers an opportunity of qualifying themselves to act as instructors of cadet companies, a special course of instruction will be provided in Toronto next July and August, lasting about one month. Details as to dates and other arrangements will be supplied by the Education Department on or about the first of May next. Teachers attending will be drilled by instructors from No. 2 Regimental Depot. At the close of the course, teachers in attendance, and such other teachers as may present themselves, will be examined by an officer of the Department. Each successful candidate will be granted a special certificate to be called "High School Cadet Instructor's Certificate."

The course of instruction for the certificate shall be as follows :

Infantry Drill, 1896 :—

Definitions as far as Tactics.

Part I. Squad drill, sec. 1 to 45. Physical drill, with arms, 16 1st, 2nd, 3rd, and 4th, practices of numbers and judging the time. Extended order, sec. 47 to 57.

Part II. Company Drill, sec. 58 to 75.

Part IX. Ceremonial, sec. 181 to 183.

Rifle Exercises :—

Manual Firing and Bayonet Exercise for the Canadian Militia, 1894, Parts I, II and III.

Candidates at the examination will be required not only to show themselves proficient in the different exercises prescribed above, but also to be able to instruct a company or squad thereon.



The Advisory Council of Education.

POWERS AND DUTIES IN RESPECT TO EXAMINATIONS.

I. (a) The Advisory Council shall appoint examiners of well known ability as teachers in either a University or a High School to set examination papers for the Junior or Senior Teachers' and the University midsummer Junior Matriculation examinations.

(b) The Council shall also appoint examiners of well known ability as inspectors or teachers to set examination papers at such other Departmental examinations as may be entrusted to it by the Education Department.

(c) The persons appointed examiners under (a) and (b) above shall not be engaged in the preparation of candidates for the examinations concerned.

(d) For the purpose of reading the answer papers of candidates at the examinations in (a) above, the Council shall appoint as associate examiners persons holding specialists' certificates according to the regulations of the Education Department, or graduates of any British University. Such persons shall be actually engaged in teaching, and shall have at least two years' successful experience in this Province.

(e) For the purpose of reading the answer papers of candidates at the other Departmental examinations, the Council shall appoint as associate examiners persons holding at least First Class certificates, who have been successful teachers and who are actually engaged in teaching.

(f) For the purpose of reading the answer papers at special non-professional examinations or at such professional examinations as may be entrusted to it by the Education Department, the Council shall appoint as associate examiners persons specially qualified.

(g) The lists from which the selections are made shall be prepared, in the case of the examiners in (a) above and of the associate examiners in (d) above, by the President of the University of Toronto and the Superintendent of Education; and shall be furnished in the case of the examiners in (b) above and of all the other associate examiners, by the Minister of Education. All the lists shall contain the names of more than the number of persons required for the examinations.

(h) Except in the case of an emergency, no examiner or associate examiner shall be appointed for more than three consecutive years.

(i) Any candidate except a candidate at the University Scholarship examinations may have his papers re-examined on appeal made to the Minister of Education not later than September 15th.

(j) The Council shall also have power to appoint from the lists of examiners supplied to it, such persons as may be required for reading the answer papers of candidates who have appealed to the Minister of Education for a re-examination of their answer papers.

(k) The number of examiners and associate examiners from year to year for each examination shall be settled by the Minister of Education on the report of the Chairman of the Board of Examiners.

II. The standard and character of the examination papers shall be determined by the regulations and instructions of the Education Department and the University of Toronto respectively.

III. Subject to the regulations and instructions of the Education Department and the University of Toronto respectively, the Council shall have power to settle the results of all the examinations entrusted to it by the Education Department and to report thereon to the Minister of Education. The settlement in the case of the Departmental examinations shall not be valid until approved of by the Superintendent of Education.

IV. (a) All communications or references requiring the attention of the Advisory Council shall be addressed to the Deputy Minister of Education.

(b) The Advisory Council shall appoint an executive committee of not more than three members.

(c) The Superintendent of Education shall submit to the Advisory Council for consideration all matters referred to it by the Minister of Education.

(d) The Registrar of the Advisory Council shall be Chairman of the Board of Examiners and of any committee thereof, and shall perform the duties set forth in Circular, "Instructions," No. 7.



The Advisory Council of Education.

POWERS AND DUTIES IN RESPECT TO EXAMINATIONS.

I.

(1) The Advisory Council shall appoint Examiners of well known ability as teachers in either a University or a High School to set examination papers for the University midsummer Junior Matriculation examinations. Such Examiners shall not be engaged in the preparation of candidates for the examinations concerned.

(2) For the purpose of reading the answer papers of candidates at the University Matriculation and the Departmental examinations for entrance into the Faculties of Education and the Normal Schools, the Council shall appoint as Associate Examiners persons holding specialists' certificates according to the regulations of the Education Department, or graduates of any British University. Such persons shall be actually engaged in teaching, and shall have at least two years' successful experience in this Province.

(3) For the purpose of reading the answer papers of candidates at the Departmental examination for entrance into the Model Schools, the Council shall appoint as Associate Examiners persons holding at least First Class Certificates, who have been successful teachers and who are actually engaged in teaching.

(4) The lists from which the selections are made shall be prepared in the case of the Examiners in (1) above and of the Associate Examiners in (2) above, by the President of the University of Toronto and the Superintendent of Education, and shall be furnished in the case of the other Associate Examiners by the Minister of Education. All the lists shall contain the names of more than the number of persons required for the examinations.

(5) Except in the case of an emergency, no Examiner or Associate Examiner shall be appointed for more than three consecutive years.

(6) Any candidate, except a candidate at the University Scholarship examinations, may have his papers re-examined on appeal to the Minister of Education not later than September 15th.

(7) In the case of the University Examinations, the appeals shall be read by a Board of Examiners appointed by the Advisory Council from the members of the Boards of Examiners and the chairmen of the sections of the Associate Examiners; and in the case of the Departmental examinations by members of the Departmental Boards, appointed by the Minister of Education.

(8) The number of Examiners and Associate Examiners from year to year for each examination shall be settled by the Minister of Education on the report of the Chairman of the Boards of Examiners.

II.

The standard and character of the examination papers shall be determined by the regulations and instructions of the Education Department and the University of Toronto, respectively.

III.

Subject to the regulations and instructions of the University of Toronto, the Advisory Council shall have power to settle the results of the Matriculation examinations and to report thereon to the Minister of Education. The settlement in the case of the Departmental examinations shall be made by the Boards of Examiners concerned and shall not be valid until approved of by the Superintendent of Education.

IV.

(1) All communications or references requiring the attention of the Advisory Council shall be addressed to the Deputy Minister of Education.

(2) The Advisory Council shall appoint an executive committee of not more than three members.

(3) The Superintendent of Education shall submit to the Advisory Council for consideration all matters referred to it by the Minister of Education.

(4) The Registrar of the Advisory Council shall be Chairman of the Boards of Examiners and of any committee thereof, and shall perform the duties set forth in Circular "Instructions" No. 7.



Instructions to Inspectors.

DISTRIBUTION OF THE LEGISLATIVE GRANT.

RURAL PUBLIC AND SEPARATE SCHOOLS IN THE ORGANIZED COUNTIES OF ONTARIO.

PROVISIONS OF THE AMENDED EDUCATION DEPARTMENT ACT.

The following are the provisions of section 4 of the Education Department Act, as amended at the recent session of the Legislature, on which has been based the new scheme of distributing the General Legislative Grant to the Rural Public and Separate Schools in the organized counties :

It shall be the duty of the Minister of Education and he shall have power :

(3) Subject to the Regulations of the Department of Education, to apportion all sums of money voted by the Legislative Assembly as a general grant for the Rural Public and Separate Schools in the organized counties and districts amongst said rural schools in the organized counties and in the districts respectively on the basis of the salaries paid to the teachers, the value of the equipment, the character of the accommodations, the grade of the teachers' professional certificates, and the amount of the assessments.

(4) The grant for the Rural Public and Separate Schools in the organized counties shall be payable on or before the first day of August, as the Lieutenant-Governor in Council may direct, to the Treasurer of each county, and through him (except when the County Treasurer acts as sub-treasurer also) to the various Township Treasurers of the county, for payment to the respective Boards of Rural Public and Separate School Trustees upon the warrants of the Public or Separate School Inspectors concerned.

(6) Under the provisions of such regulations as may be made by the Department of Education, to apportion to Public and Separate School Boards in poor rural districts, and to the residents of lumber, mining, and other settlements all sums of money voted by the Legislative Assembly for teachers' salaries to Public and Separate School Boards in poor rural districts, and for such other school purposes as the Minister of Education may consider expedient.

SCHEME OF DISTRIBUTION.

The information herein contained is now communicated to the Public and the Separate School Inspectors in order that they may have sufficient time to procure from School Boards and County and Township Clerks the data necessary to fill in the official returns on which the distribution will be made by the Education Department and the forms for which will be sent to each Inspector as soon as they are printed. All such data as above shall be certified by the official concerned. The Inspector shall see that they are properly made out and shall retain them for at least one year as the authority for his official report. The grants must be paid by the Education Department on or before the first day of August, and it will, accordingly, be necessary for the Inspector to act as expeditiously as possible in procuring the information he may need, so that he may make his report to the Minister not later than June 22nd.

The average section assessment of the township, hereinafter specified, shall be calculated in accordance with the last made equalized assessments of the municipalities in the manner provided by the Municipal and Assessment Acts. In computing said average, Union Sections made up of portions of different townships shall be regarded as belonging to the township in which the school building is situated, according to the equalization made by the assessors as provided in section 54 of the Public Schools Act of 1901; and the lands of the supporters of each Separate School shall be regarded as a section.

Under the new scheme, the total yearly apportionment to each school shall be the sum of the grants to which it is entitled under the following regulations; but

- (1) Only half of each grant shall be paid where the school is open less than the full year, but at least one term;
- (2) Only half of the grant on the assistant teacher's salary shall be paid when he teaches less than the full year but at least one term;
- (3) Continuation Classes, Grades A and B, shall not share in this apportionment.

I. FIXED GRANTS.

Where the average section assessment of the township, as defined above, is less than \$30,000.00, each school shall receive a fixed grant of \$30.00; where it is at least \$30,000.00 and less than \$40,000.00, the fixed grant shall be \$25.00; and where it is at least \$40,000.00 and less than \$50,000.00, it shall be \$20.00.

II. GRANTS ON SALARIES.

For the present year the grant on salaries shall be distributed on the basis of the rates current when the Inspector makes his report. Thereafter it will be made on the basis of the amounts paid in salaries each school year (beginning in August and ending in June).

Each school shall receive 40 per cent. of the excess amount of the salaries up to a maximum of \$600.00 salary in the case of each teacher, the computation beginning as follows :

(1) At \$150.00 for a principal teacher and at \$100.00 for each assistant teacher where the average section assessment, as defined above, of the township where the school is situated is less than \$30,000.00 ;

(2) At \$200.00 for a principal and at \$150.00 for each assistant, where said assessment is at least \$30,000.00 and less than \$40,000.00 ;

(3) At \$250.00 for a principal and at \$150.00 for each assistant where said assessment is at least \$40,000.00 and less than \$60,000.00 ;

(4) At \$300.00 for a principal and at \$200.00 for each assistant in the case of all other assessments.

III. GRANTS ON THE QUALIFICATIONS OF THE TEACHERS.

An additional grant of \$20.00 shall be apportioned in each case where the teacher holds a Professional Second Class or First Class Certificate, the competency of each such teacher being attested by the County or the Provincial Inspector of the school in which said teacher is teaching when the grant is applied for. The grant shall be one-half the amount if the teacher teaches at least one term but less than a year.

IV. GRANTS ON EQUIPMENT AND ACCOMMODATIONS.

Of the general Legislative Grant, \$60,000 shall be apportioned on the value of the equipment and the character of the accommodations. To the several amounts thereof apportioned to each county, each county shall add at least the equivalent, as provided for by section 19 [70 (1)] of the Public Schools Amendment Act of 1907, in accordance with the following regulations :

(1) When the amount of the Legislative and County Grants is insufficient to provide for each school the sums required under the following regulations, the Inspector shall make a *pro rata* deduction from the total grant to each school ; and where there is a balance over after making the provision for each school as required by the said regulations, he shall make a *pro rata* addition to the total grant to each school.

(2) When a Union School Section is composed of portions of townships in different counties, the grant to its school from each county shall, as far as practicable, be that fraction of the Legislative Grant payable to

said school which the assessed value of the portion of the section within the county is of the whole assessed value of the section, according to the equalization made by the assessors, as provided in section 54 of the Public Schools Act of 1901.

(3) For the present year, the grant to each Inspectorate shall be sub-apportioned by the Inspector in accordance with the instructions of Circular No. 33, 1906, as to the grading of the accommodations; and the items of the equipment therein (the minimum list), provided in each school, shall be those on the value of which he will reckon the percentage. Thereafter these grants shall be distributed in accordance with the instructions of Circular No. 33, as revised in 1907. The special equipment for a Continuation Class shall not be included.

(4) Out of the combined Legislative and County grants, each school shall receive 10 per cent. of the approved value of the equipment up to a maximum grant of \$20.00 for each principal and of \$2.50 additional for each assistant.

(5) Out of the combined Legislative and County grants, each school shall receive a grant on the character of its accommodations, the maximum being \$30.00 for a one-teacher school, \$45.00 for a two-teachers school, and \$60.00 for a school with more than two teachers, in accordance with the following scheme :

Grade.	One teacher.				Two teachers.				Three teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Closets	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Water supply...	2 00	1 50	1 00	50	2 00	1 50	1 00	50	3 00	2 25	1 50	75
School grounds...	4 00	3 00	2 00	1 00	5 00	3 75	2 50	1 25	6 00	4 50	3 00	1 50
School buildings.	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Class rooms.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Halls.....	.....	.....	.....	.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75
Cap rooms.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Private rooms...	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Desks	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Blackboards	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Lighting.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Heating	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Ventilation.....	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
	30 00	22 50	15 00	7 50	45 00	33 70	22 50	11 30	60 00	45 00	30 00	15 00

MODE OF DISTRIBUTION.

The fixed grants under I., the 40 per cent. grants on excess of teachers' salaries under II., and the grants on teachers' certificates under III., will be distributed by the Minister, through the County or Township

Treasurers, as the case may be, on or before the first day of August; and the several amounts thereof apportioned to each Section Treasurer will be payable by the County or the Township Treasurer, as the case may be, on the order of the Inspector concerned.

In the Departmental distribution of the \$60,000 grant on the equipment and the accommodations, this sum will be divided first by the total number of the teachers in the Rural Public and Separate Schools in the organized counties at the time the Inspector makes his report (excluding the teachers of Continuation Classes Grades A and B), the principal teacher being reckoned as a unit and each assistant as a half. In case a teacher shall have been employed less than the full time during the year preceding July he shall be reckoned, if a principal, as a half, and, if an assistant, as a quarter; provided, however, he shall have taught not less than half a year. The quotient thus obtained, multiplied by the number of teachers in each inspectorate (reckoned as above) will give the total Legislative Grant to be distributed in each Inspectorate on the basis of equipment and accommodations. This part of the Legislative grant will be paid by the Education Department at the same time and to the same officials as in the case of the other Legislative Grants.

As soon as the Public or the Separate School Inspector concerned has secured the necessary data, and before December the first at the latest, he shall sub-apportion the Legislative Grant on the equipment and the accommodations with the County equivalent, amongst the schools in his Inspectorate, in accordance with the scheme under IV. above, which defines the application of said grants for equipment and accommodations. As in the case of the other grants, these grants will be payable to each Section Treasurer by the County Treasurer, or the Township Treasurer, as the case may be, on the order of the Inspector concerned. If said grants are payable by the Township Treasurer, the Inspector, when he has made his sub-apportionment, shall notify the County Treasurer of the amount due the Township Treasurer on this account.

10 In order that each County Council may be duly notified at its June meeting of the amount it must raise, under section 19 [70 (1)] of the Public Schools Amendment Act of 1907, as the equivalent of the Legislative Grant to the county on equipment and accommodations, it is indispensable that each Inspector should notify the Minister on or before May 22nd of each year, as to the number respectively of Principal and Assistant Teachers of the Rural Schools in his Inspectorate, specifying separately the number of each who shall have taught by June 30th less than one year, and at least six months, and, when he has rural schools in different counties, making a separate return of such principal and assistant teachers in each county. 11

GRANTS TO ASSISTED SCHOOLS.

As heretofore, the grant to Assisted Schools (formerly called "Poor Schools"), provided for in section 4 (6) of the Amended Education Department Act of 1907, quoted above, will be apportioned on the report of the Inspector, who shall supply, in a form to be obtained from the Minister, the details necessary to enable him to form a proper judgment as to the merits of each application.

SPECIAL GRANT FOR RURAL SCHOOL LIBRARIES.

A special grant of \$5,000.00, made in aid of School Libraries at the recent session of the Legislature, will be distributed amongst the Rural Public and Separate Schools of the Province. In the organized counties this year their share of this grant will be apportioned as an additional percentage on the value of all library books purchased between July 1st, 1906, and July 1st, 1907, provided no school receives more than \$5.00 and no purchase is less than \$10.00. The books shall also have been approved by the Inspector as especially suitable for the pupils' use.

All applications for this grant must be made by the Trustees through the Inspector, on or before the 10th day of July. The trustees shall supply the Inspector with all the information he may require, in regard to the purchase of the books, including vouchers from the booksellers.

The Inspector will make application to the Education Department on a form to be provided, which must be forwarded to the Education Department not later than the first day of August.

Next year the Minister will recommend to the Legislature a grant for the same purpose, and any purchases made of books for the pupils' use after the first of July of this year will be taken into account in next year's apportionment of the Legislative Grant.



Instructions to Inspectors.

REVISED 1908.

DISTRIBUTION OF THE LEGISLATIVE GRANT.

RURAL PUBLIC AND SEPARATE SCHOOLS IN THE ORGANIZED COUNTIES OF ONTARIO.

PROVISIONS OF THE DEPARTMENT OF EDUCATION ACT, AMENDED 1908.

The following are the provisions of Section 4 of the Education Department Act, as amended at the recent session of the Legislature, on which is based the scheme of distributing the General Legislative Grant to the Rural Public and Separate Schools in the organized counties:

It shall be the duty of the Minister of Education and he shall have power:

(3) Subject to the Regulations of the Department of Education, to apportion all sums of money voted by the Legislative Assembly as a general grant for the Rural Public and Separate Schools in the organized counties and districts amongst said rural schools in the organized counties and in the districts respectively on the basis of the salaries paid to the teachers, the value of the equipment, the character of the accommodations, the grade of the teachers' professional certificates, the length of their successful experience, and the amount of the assessments.

(4) The grant for the Rural Public and Separate Schools in the organized counties shall be payable on or before the first day of August, as the Lieutenant-Governor in Council may direct, to the Treasurer of each county, and through him (except when the County Treasurer acts as sub-treasurer also) to the various Township Treasurers of the county, for payment to the respective Boards of Rural Public and Separate School Trustees upon the warrants of the Public or Separate School Inspectors concerned.

(6) Under the provisions of such regulations as may be made by the Department of Education, to apportion to Public and Separate School Boards in poor rural districts, and to the residents of lumber, mining, and other settlements all sums of money voted by the Legislative Assembly for teachers' salaries to Public and Separate School Boards in poor rural districts, and for such other school purposes as the Minister of Education may consider expedient.

GENERAL INSTRUCTIONS.

The information herein contained is now communicated to the Public and Separate School Inspectors in order that they may have sufficient time to procure from School Boards and County and Township Clerks the data necessary to fill in the official returns on which the distribution will be made by the Education Department and the forms for which will be sent to each Inspector. All such data as above shall be certified by the official concerned. The Inspector shall see that they are properly made out and shall retain them for at least one year as the authority for his official report. The Public School Act provides that the Legislative grants shall be payable by the Minister of Education on or before the first day of August. It will, accordingly, be necessary for the Inspector to act as expeditiously as possible in procuring the information he may need, so that he may make his report to the Education Department *not later than June 22nd*.

ASSESSMENTS AND SECTIONS.

(1) The average section assessment of the township hereinafter referred to is the quotient obtained by dividing by the number of school sections in the township, the total assessed value of the township as fixed by the last made county equalization.

(2) For the above computation :—

- (a) The lands of the supporters of each Separate School shall be counted as a section in forming the divisor.
- (b) A union section shall be counted as belonging to the township in which the school building is situated, and the assessed value of the portion of the other township or townships completing said union section shall be added to the dividend (see Public School Act of 1901, section 54).
- (c) When there are two schools in a section, the section shall be counted as two sections in forming the divisor.

SCHEME OF DISTRIBUTION.

The total yearly apportionment to each school, *not including Continuation Schools*,* shall be the sum of the grants to which it is entitled under the following regulations :

I. FIXED GRANTS.

Where the average section assessment of the township, as defined above, is less than \$30,000.00, each school shall receive a fixed grant of \$30.00; where it is at least \$30,000.00 and less than \$40,000.00, the fixed grant shall be \$25.00; and where it is at least \$40,000.00 and less than \$50,000.00, it shall be \$20.00. Where it is \$50,000 or more there shall be no fixed grant.

II. GRANTS ON SALARIES.

(1) Each school shall receive 40 per cent. of the amounts paid in teachers' salaries each school year (beginning in August and ending in June) up to

*Note—The name "Continuation School" (the former Continuation Class, Grade A) is applied, not to the whole public school, but to the particular division or divisions thereof in which Continuation School Work is taught.

a maximum of \$600.00 salary in the case of each teacher, the computation beginning as follows :

(a) At \$150.00 for a principal teacher and at \$100.00 for each assistant teacher where the average section assessment, as defined above, of the township where the school is situated is less than \$30,000.00 ;

(b) At \$200.00 for a principal and at \$150.00 for each assistant where said assessment is at least \$30,000.00 and less than \$40,000.00 ;

(c) At \$250 for a principal and at \$150.00 for each assistant where said assessment is at least \$40,000.00 and less than \$60,000.00 ;

(d) At \$300.00 for a principal and at \$200.00 for each assistant in the case of all other assessments.

(2) Where the teacher performs all the duties of caretaker the Inspector shall deduct from the amount paid him for his services as teacher and caretaker a sum not exceeding \$25 in any one case, and where he performs part of the duties a proportionate amount of \$25.00.

III. GRANTS ON THE TEACHERS' QUALIFICATIONS.

The following grants shall be paid on the basis of the grade of the teacher's professional certificate and the length of his successful experience, *the competency of each such teacher being duly attested by the County or Provincial Inspector, as the case may be, of the school for which such grant is claimed.* The grant shall be one-half the amount if the teacher of the school holds such certificate for less than a year but for at least one term :

(1) If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July the first next,

(a) For a First Class Certificate \$40

(b) For a Second Class Certificate..... 30

(2) If said experience shall have been less than five years on the same date,

(a) For a First Class Certificate \$30

(b) For a Second Class Certificate 20

(3) If the teacher holds a Provincial Permanent Third Class, or a Provincial Permanent ungraded Certificate \$10

IV. GRANTS ON EQUIPMENT AND ACCOMMODATIONS.

By section 19 (70 (1)) of the Public Schools Amendment Act of 1907 each County Council must raise the equivalent of the Legislative grant to the County for equipment and the accommodations.

(1) The Legislative grant on the equipment and the accommodations is distributed by the Minister as follows :

The total amount apportioned is divided by the total number of teachers in the Rural Public and Separate Schools, not including the teachers of Continuation Schools; and the quotient thus obtained, multiplied by the number of teachers in each inspectorate, gives the Legislative grant payable for the inspectorate.

For this computation each Principal is reckoned as a unit and each assistant as a half if the school has been open for the whole school year; but each Principal shall be reckoned as a half and each assistant as a quarter if the school or the assistant's class, as the case may be, has been open for less than a year but not less than half a year.

(2) The grant to each Inspectorate shall be sub-apportioned by the Inspector in accordance with the instructions of Circular No. 33, 1907, as to the grading of the accommodations; and the items of the equipment provided in each school in accordance with said circular, shall be those on the value of which he will reckon the percentage. The special equipment for Continuation Schools or Fifth Forms (the former Continuation Classes, Grades B and C), shall not be included.

(3) Out of the combined Legislative and County grants, each school shall receive 10 per cent. of the approved value of the equipment up to a maximum grant of \$20.00 for each Principal and of \$2.50 additional for each assistant.

(4) Out of the combined Legislative and County grants, each school shall receive a grant on the character of its accommodations, the maximum being \$30.00 for a one-teacher school, \$45.00 for a two-teachers school, and \$60.00 for a school with more than two teachers, in accordance with the following scheme :

Grade.	One teacher.				Two teachers.				Three teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Closets.	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Water supply. . .	2 00	1 50	1 00	50	2 00	1 50	1 00	50	3 00	2 25	1 50	75
School grounds. .	4 00	3 00	2 00	1 00	5 00	3 75	2 50	1 25	6 00	4 50	3 00	1 50
School buildings	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Class rooms. . . .	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Halls.					2 00	1 50	1 00	50	3 00	2 25	1 50	75
Cap rooms.	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Private rooms. . .	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Desks.	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Blackboards. . . .	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Lighting.	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Heating.	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Ventilation.	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
	30 00	22 50	15 00	7 50	45 00	33 70	22 50	11 30	60 00	45 00	30 00	15 00

(5) When a Union School Section is composed of portions of townships in different counties, the grant to its school from each county shall, as far as practicable, be that fraction of the Legislative grant payable to said school which the assessed value of the portion of the section within the county is of the whole assessed value of the section, according to the equalization made by the assessors, as provided in section 54 of the Public Schools Act of 1901.

(6) When the amount of the Legislative and County grants is insufficient to provide for each school the sums required under the foregoing regulations, the Inspector shall make a *pro rata* deduction from the total grant to each school; and where there is a balance over after making the provision for each school as required by the said regulations, he shall make a *pro rata* addition to the total grant to each school.

(7) In order that the County Council may be duly notified before its June meeting of the amount it must raise as the equivalent of the Legislative grant on equipment and accommodations, each Inspector shall notify the Minister not later than May 15th of the number of teachers in his Inspectorate reckoned as in (1) above.

When the Inspector has Rural Schools in different counties, he shall make a separate return for each county.

V. TIME OF PAYMENT OF THE GRANTS.

Subsection 3 of section 4 of the Department of Education Act provides for the payment of the Legislative grant to the counties concerned before August 1st. Said grants shall be forthwith payable to the respective Boards of Rural Public and Separate School Trustees, except the grant on the equipment and the accommodations which, with the equivalent County grant, shall be payable as the Inspector may arrange, but not later than December 1st. If said grants on equipment and accommodations are payable to the Township Treasurer, the Inspector shall notify the County Treasurer of the amount due the Township Treasurer on this account.

GRANTS TO ASSISTED SCHOOLS.

As heretofore, the grant to Assisted Schools provided for in section 4 (6) of the Amended Education Department Act of 1907, quoted above, will be apportioned on the report of the Inspector, who shall supply, in a form to be obtained from the Minister, the details necessary to enable him to form a proper judgment as to the merits of each application.

SPECIAL GRANT FOR RURAL SCHOOL LIBRARIES.

The special grant of \$6,000.00 (\$1,000.00 more than last year) in aid of Rural School Libraries will be distributed amongst the Rural Public and Separate Schools of the whole Province, not including Continuation Schools, as an additional percentage on the value of all library books purchased between July 1st, 1907, and October 1st, 1908, provided no school receives more than \$10.00, and provided no purchase is less than \$10.00. *The books shall also have been approved by the Inspector as especially suitable for the pupils' use.*

All applications for this grant must be made by the Trustees through the Inspector, on or before the 15th day of October. The Trustees shall supply the Inspector with all the information he may require, in regard to the purchase of the books, including vouchers from the booksellers.

The Inspector shall make application to the Education Department on a form to be provided, which must be forwarded to the Education Department not later than the first day of November.

May 4th, 1908.



Instructions to Inspectors.

REVISED 1909.

DISTRIBUTION OF THE LEGISLATIVE GRANT.

RURAL PUBLIC AND SEPARATE SCHOOLS IN THE ORGANIZED COUNTIES OF ONTARIO.

PROVISIONS FOR THE DISTRIBUTION OF THE LEGISLATIVE GRANT.

The following is the scheme of distributing the Legislative Grant to the Rural Public and Separate Schools in the organized counties :

It shall be the duty of the Minister of Education and he shall have power :

- (g) Subject to the Regulations, to apportion all sums of money appropriated as a general grant for the Rural Public and Separate Schools amongst such Rural Schools on the basis of the salaries paid to the teachers, the value of the equipment, the character of the accommodation, the grade of the teachers' professional certificates, the length of their successful experience, and the amount of the assessments;
- (h) To pay, on or before the first day of August, in each year, the grant so apportioned to the Rural Public and Separate Schools in counties, to the treasurer of the county, and through him (except when he acts as sub-treasurer also) to the township treasurers for payment by them to the boards of Rural Public and Separate School Trustees upon the warrants of the inspectors of Public and Separate Schools;
- (j) Subject to the Regulations, to apportion to Public and Separate School Boards in poor rural districts, and to the residents of lumber, mining, and other settlements all sums of money appropriated for assisted schools;

GENERAL INSTRUCTIONS.

The information herein contained is now communicated to the Public and Separate School Inspectors in order that they may have sufficient time to procure from School Boards and County and Township Clerks the data necessary to fill in the official returns on which the distribution will be made by the Department of Education and the forms for which

will be sent to each Inspector. All such data as above shall be certified by the official concerned. The Inspector shall see that they are properly made out and shall retain them for at least one year as the authority for his official report. The Public Schools Act provides that the Legislative grants shall be payable by the Minister of Education on or before the 31st day of August. It will, accordingly, be necessary for the Inspector to act as expeditiously as possible in procuring the information he may need, so that he may make his report to the Department of Education *not later than June 22nd.*

ASSESSMENTS AND SECTIONS.

(1) The average section assessment of the township hereinafter referred to is the quotient obtained by dividing by the number of school sections in the township, the total assessed value of the township as fixed by the last made county equalization.

(2) For the above computation:—

(a) The lands of the supporters of each Separate School shall be counted as a section in forming the divisor.

(b) A union section shall be counted as belonging to the township in which the school building is situated, and the assessed value of the portion of the other township or townships completing said union section shall be added to the dividend (see Public Schools Act of 1909, section 79).

(c) When there are two schools in a section, the section shall be counted as two sections in forming the divisor.

SCHEME OF DISTRIBUTION.

The total yearly apportionment to each school, *not including Continuation Schools,** shall be the sum of the grants to which it is entitled under the following regulations:

I. FIXED GRANTS.

Where the average section assessment of the township, as defined above, is less than \$30,000.00, each school shall receive a fixed grant of \$30.00; where it is at least \$30,000.00 and less than \$40,000.00, the fixed grant shall be \$25.00; and where it is at least \$40,000.00 and less than \$50,000.00, it shall be \$20.00. Where it is \$50,000 or more there shall be no fixed grant.

II. GRANTS ON SALARIES.

(1) Each school shall receive 40 per cent. of the amounts paid in teachers' salaries each school year (beginning in August and ending in June) up to a maximum of \$600.00 salary in the case of each teacher, the computation beginning as follows:

(a) At \$150.00 for a principal teacher and at \$100.00 for each assistant teacher where the average section assessment, as defined above, of the township where the school is situated is less than \$30,000.00;

* *Note.*—The name "Continuation School" (the former Continuation Class, Grade A) is applied, not to the whole public school, but to the particular division or divisions thereof in which Continuation School Work is taught.

(b) At \$200.00 for a principal and at \$150.00 for each assistant where said assessment is at least \$30,000.00 and less than \$40,000.00;

(c) At \$250 for a principal and at \$150.00 for each assistant where said assesment is at least \$40,000.00 and less than \$60,000.00;

(d) At \$300.00 for a principal and at \$200.00 for each assistant in the case of all other assessments.

(2) Where the teacher performs all the duties of caretaker the Inspector shall deduct from the amount paid him for his services as teacher and caretaker a sum not exceeding \$25 in any one case, and where he performs part of the duties a proportionate amount of \$25.00.

III. GRANTS ON THE TEACHERS' QUALIFICATION.

The following grants shall be paid on the basis of the grade of the teacher's professional certificate and the length of his successful experience, *the competency of each such teacher being duly attested by the County or Provincial Inspector, as the case may be, of the school for which such grant is claimed.* The grant shall be one-half the amount if the teacher of the school holds such certificate for less than a year but for at least one term:

(1) If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July the first next,

(a) For a First Class Certificate \$40

(b) For a Second Class Certificate 30

(2) If said experience shall have been less than five years on the same date,

(a) For a First Class Certificate \$30

(b) For a Second Class Certificate 20

(3) If the teacher holds a Provincial Permanent Third Class, or a Provincial Permanent ungraded Certificate 10

IV. GRANTS ON EQUIPMENT AND ACCOMMODATIONS.

By section 90 (1) of the Public Schools Act of 1909 each County Council must raise the equivalent of the Legislative grant to the County for equipment and the accommodations.

(1) The Legislative grant on the equipment and the accommodations is distributed by the Minister as follows:

The total amount apportioned is divided by the total number of teachers in the Rural Public and Separate Schools, not including the teachers of Continuation Schools; and the quotient thus obtained, multiplied by the number of teachers in each inspectorate, gives the Legislative grant payable for the inspectorate.

For this computation each Principal is reckoned as a unit and each assistant as a half if the school has been open for the whole school year; but each Principal shall be reckoned as a half and each assistant as a quarter if the school or the assistant's class, as the case may be, has been open for less than a year but not less than half a year.

(2) The grant to each Inspectorate shall be sub-apportioned by the Inspector in accordance with the instructions of Circular No. 33, 1907, as to the grading of the accommodations; and the items of the equipment provided in each school in accordance with said circular, shall be those on the value of which he will reckon the percentage. The special equipment

for Continuation Schools or Fifth Forms (the former Continuation Classes, Grades B and C), shall not be included.

(3) Out of the combined Legislative and County grants, each school shall receive 10 per cent. of the approved value of the equipment up to a maximum grant of \$20.00 for each Principal and of \$2.50 additional for each assistant.

(4) Out of the combined Legislative and County grants, each school shall receive a grant on the character of its accommodations, the maximum being \$30.00 for a one-teacher school, \$45.00 for a two-teachers school, and \$60.00 for a school with more than two teachers, in accordance with the following scheme :

Grade.	One teacher.				Two teachers.				Three teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Closets	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Water supply....	2 00	1 50	1 00	50	2 00	1 50	1 00	50	3 00	2 25	1 50	75
School grounds...	4 00	3 00	2 00	1 00	5 00	3 75	2 50	1 25	6 00	4 50	3 00	1 50
School buildings	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Class rooms.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Halls.....					2 00	1 50	1 00	50	3 00	2 25	1 50	75
Cap rooms.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Private rooms....	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Desks	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Blackboards....	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Lighting.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Heating.....	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Ventilation.....	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
	30 00	22 50	15 00	7 50	45 00	33 70	22 50	11 30	60 00	45 00	30 00	15 00

(5) When a Union School Section is composed of portions of townships in different counties, the grant to its school from each county shall, as far as practicable, be that fraction of the Legislative grant payable to said school which the assessed value of the portion of the section within the county is of the whole assessed value of the section, according to the equalization made by the assessors, as provided in section 29 of the Public Schools Act of 1909.

(6) When the amount of the Legislative and County grants is insufficient to provide for each school the sums required under the foregoing regulations, the Inspector shall make a *pro rata* deduction from the total grant to each school; and where there is a balance over after making the provision for each school as required by the said regulations, he shall make a *pro rata* addition to the total grant to each school.

(7) *In order that the County Council may be duly notified before its June meeting of the amount it must raise as the equivalent of the Legislative grant on equipment and accommodations, each Inspector shall notify the Minister not later than May 15th of the numbers of teachers in his Inspectorate reckoned as in (1) above.*

When the Inspector has Rural Schools in different counties, he shall make a separate return for each county.

V. TIME OF PAYMENT OF THE GRANTS.

Subsection (h) of section (6) of the Department of Education Act provides for the payment of the Legislative grant to the counties concerned before August 1st. Said grants shall be forthwith payable to the respective Boards of Rural Public and Separate School Trustees, except the grant on the equipment and the accommodations which, with the equivalent County grant, shall be payable as the Inspector may arrange, but not later than December 1st. If said grants on equipment and accommodations are payable to the Township Treasurer, the Inspector shall notify the County Treasurer of the amount due the Township Treasurer on this account.

GRANTS TO ASSISTED SCHOOLS.

As heretofore, the grant to Assisted Schools provided for in section 6 (j) of the Department of Education Act of 1909, quoted above, will be apportioned on the report of the Inspector, who shall supply, in a form to be obtained from the Minister, the details necessary to enable him to form a proper judgment as to the merits of each application.

SPECIAL GRANT FOR RURAL SCHOOL LIBRARIES.

The special grant of \$6,000.00 in aid of Rural School Libraries will be distributed amongst the Rural Public and Separate Schools of the whole Province, not including Continuation Schools or Fifth Classes as an additional percentage on the value of all library books purchased between October 1st, 1908, and October 1st, 1909, provided no school receives more than \$10.00, and provided no purchase is less than \$10.00. *The books shall also have been approved by the Inspector as especially suitable for the pupils' use.*

All applications for this grant must be made by the Trustees through the Inspector, on or before the 15th day of October. The Trustees shall supply the Inspector with all the information he may require, in regard to the purchase of the books, including vouchers from the booksellers.

The Inspector shall make application to the Department of Education on a form to be provided, which must be forwarded to the Department of Education not later than the first day of November.

May 4th, 1909.



Instructions to Inspectors.

DISTRIBUTION OF THE LEGISLATIVE GRANT.

RURAL PUBLIC AND SEPARATE SCHOOLS. IN THE DISTRICTS OF ONTARIO.

PROVISIONS OF THE AMENDED DEPARTMENT OF EDUCATION ACT.

The following are the provisions of Section 4 of the Education Department Act, as amended at the recent session of the Legislature, on which has been based the new scheme of distributing the Legislative Grant to the Rural Public and Separate Schools in the Districts.

It shall be the duty of the Minister of Education, and he shall have power :

(3) Subject to the Regulations of the Department of Education, to apportion all sums of money voted by the Legislative Assembly as a general grant for the Rural Public and Separate Schools in the organized counties and districts amongst said rural schools in the organized counties and in the districts respectively on the basis of the salaries paid to the teachers, the value of the equipment, the character of the accommodations, the grade of the teachers' professional certificates, and the amount of the assessments.

(5) Subject to the Regulations of the Department of Education, the grants for the Rural Public and Separate Schools in the districts shall be payable in two instalments direct to the respective boards of trustees as the Lieutenant-Governor in Council may direct; the first instalment on or before the first day of August and the second on or before the first day of December.

(6) Under the provisions of such regulations as may be made by the Department of Education, to apportion to Public and Separate School Boards in poor rural districts, and to the residents of lumber, mining, and other settlements all sums of money voted by the Legislative Assembly for teachers' salaries to Public and Separate School Boards in poor rural districts, and for such other school purposes as the Minister of Education may consider expedient.

SCHEME OF DISTRIBUTION.

The information herein contained is now communicated to the District Inspectors in order that they may have sufficient time to procure from School Boards and Township Clerks the data necessary for the official returns on which the distribution will be made by the Education Department, and the forms for which will be sent to each Inspector as soon as they are printed. All returns from School Boards shall be certified by the Secretary or Secretary-Treasurer; those from the Township Clerks shall be certified by these officials; and said returns shall be retained by the Inspector for at least one year as his authority for his official report. The Legislative Grants must be paid by the Education Department on or before August 1st. It will accordingly be necessary for the Inspector to act as expeditiously as possible in procuring the information he may need, so as to be able to fill in the official forms not later than June 22nd. As provided in section 4 (5) quoted above, the instalments will be payable direct to the School Boards concerned; the first, on or before the first day of August; and the second, on or before the first day of December, provided the Inspector certifies that the school has been in effective operation for the second half year.

The assessments specified below, on which the grants concerned will be based, are as follows:

(1) In the case of *organized townships*, the average section assessment of each township for 1907 shall be computed on the assessment of 1906, that for 1908 on the assessments of 1906 and 1907, and thereafter on the assessments for the three years next preceding the year of distribution. In computing the said average section assessment, the lands of the supporters of each Separate School in the township shall be reckoned as a section.

(2) In the case of *unorganized townships*, the assessment of each section for 1907 shall be computed on the assessment of 1906, that for 1908 on the average of the assessments of 1906 and 1907, and thereafter on the average of the assessments for the three years next preceding the year of distribution.

(3) If, in any year, the assessment of 1906 is reduced in any case, such reduction shall not be recognized by the Education Department, unless satisfactory reasons are submitted, through the Inspector, for said reduction.

(4) Where there are two schools in a section, half the section shall be reckoned as belonging to each school.

(5) Where a union section is made up of sections of different townships, the union section shall be reckoned as belonging to that township in which the school house is situated.

Under the new scheme the total yearly apportionment to each school shall be the sum of the grants to which it is entitled under the following regulations, but

- (1) Only half of each grant shall be paid where the school is open less than the full year but at least one term;
- (2) Only half of the grant on the assistant teacher's salary shall be paid when he teaches less than the full year but at least one term;
- (3) Continuation Classes Grades A and B shall not share in this apportionment.

I. GRANTS PAYABLE ON THE BASIS OF THE TEACHERS' SALARIES.

(1) Where the assessment, as defined above, is under \$20,000, 40 per cent. of the excess of each salary over \$100, to a maximum salary of \$600.

(2) Where the assessment, as defined above, is \$20,000 or over, 40 per cent. of the excess of the salary of each Principal over \$150 and of each Assistant over \$100, in each case to a maximum salary of \$600.

For 1907 the Grant on teachers' salaries will be computed on the rate per annum current when the Inspector makes his report. Thereafter it will be computed on the amount paid for the school year (beginning after June of the year preceding the year of apportionment).

II. GRANTS PAYABLE ON THE BASIS OF THE TEACHERS' CERTIFICATES.

- (1) \$20 on each Professional District Certificate.
- (2) \$25 on each Professional Third Class Certificate.
- (3) \$30 on each Professional Second Class Certificate.
- (4) \$35 on each Professional First Class Certificate.

The grant is payable on the grade of the certificate of the teacher in the School when the Inspector reports.

The grant shall be one-half the amount if the teacher teaches at least one term but less than a year.

No grant will be made on the grade of a Teacher's Certificate in any year without the attestation of the Inspector that the teacher concerned is teaching satisfactorily to said Inspector.

III. SPECIAL GRANTS PAYABLE TO SCHOOLS IN POOR DISTRICTS.

The following special grants will be paid out of the Legislative Grant for assisted Public and Separate Schools in new districts:

(a) *Fixed Minimum Grants.*

(1) Where the assessment, as defined above, is under \$20,000, a special grant of \$40.

(2) Where the assessment, as defined above, is at least \$20,000, but less than \$30,000, a special grant of \$30.

(3) Where the assessment, as defined above, is at least \$30,000, but less than \$40,000, a special grant of \$25.

(4) Where the assessment, as defined above, is at least \$40,000, but less than \$50,000, a special grant of \$20.

(b) Grants payable for the Improvement of Equipment and Accommodations.

(1) Where the assessment, as defined above, is under \$20,000, a special grant of \$30.

(2) Where the assessment, as defined above, is at least \$20,000 and under \$30,000, a special grant of \$15.

The special grants for the improvement of equipment and accommodations shall be expended by the trustees under the advice of the Inspector, and before August 1st of the year next following the receipt of the grant.

At the apportionment of the Legislative Grant in 1908, where the assessment, as defined above, is over \$30,000, a percentage will be allowed on the value of the equipment, and a grant on the character of the accommodations. These grants will be apportioned as far as practicable on the same conditions as are now provided for the apportionment of the grant on the basis of the equipment and the accommodations in the case of Rural Public and Separate Schools in the organized counties. (See Circular No. 33, 1907.)

(c) Further Grants to Assisted Schools.

As provided in section 4 (6) of the Education Department Act, quoted above, further grants will be made to assist special cases of hardship in school sections and in settlements where there is as yet no school organization, for teachers' salaries and for such other purposes as the Minister of Education may deem expedient. Such grants will be made on the report of the Inspector concerned, who shall set forth in full detail on or before the first of November of each year, in a form to be obtained from the Minister, the conditions which, in his judgment, necessitate such grants.

SPECIAL GRANT FOR RURAL SCHOOL LIBRARIES.

A special grant of \$5,000 was made in aid of Rural School Libraries of the Province at the recent session of the Legislature. The share of the Districts in this grant will be distributed this year as a percentage on the value of all books purchased between July 1st, 1906, and July 1st, 1907, provided no school receive more than \$5.00 and no purchase is less than \$10.00. The books shall also have been approved by the Inspector as especially suitable for the pupils' use.

All applications for this grant must be made by the Trustees through the Inspector, on or before the 10th day of July. The Trustees shall supply the Inspector with all the information he may require, in regard to the purchases of the books, including vouchers from the booksellers.

The Inspector will make application to the Education Department on a form to be provided, which must be forwarded to the Education Department not later than the first day of August.

At its next session, the Minister will recommend to the Legislature a grant for the same purpose, and any purchases made of library books for the pupils' use after the 1st of July of this year will be taken into account in next year's distribution of the Legislative Grant.



Instructions to Inspectors.

REVISED, 1909.

DISTRIBUTION OF THE LEGISLATIVE GRANT.

RURAL PUBLIC AND SEPARATE SCHOOLS IN THE DISTRICTS OF ONTARIO.

STATUTORY PROVISIONS FOR THE DISTRIBUTION OF THE LEGISLATIVE GRANTS.

The following is the scheme of distributing the Legislative Grant to the Rural Public and Separate Schools in the Districts :

(1) Subject to the Regulations all sums of money appropriated as a general grant for the Rural Public and Separate Schools shall be apportioned by the Minister amongst such Rural Schools on the basis of the salaries paid to the teachers, the value of the equipment, the character of the accommodations, the grade of the teachers' professional certificates, the length of their successful experience, and the amount of the assessments.

(2) Subject to the Regulations the grants so apportioned to Rural Public and Separate Schools in Provisional Judicial Districts shall be paid to the respective boards of trustees on or before the first day of August in each year or in two equal instalments, the first on or before the 1st day of August, and the second on or before the first day of December.

(3) Subject to the Regulations all sums of money appropriated for assisted schools shall be apportioned by the Minister to Public and Separate School Boards in poor rural districts, and to the residents of lumber, mining, and other settlements.

GENERAL INSTRUCTIONS.

The information herein contained is now communicated to the District Inspectors in order that they may have sufficient time to procure from School Boards and Township Clerks the data necessary for the official returns on which the distribution will be made by the Minister, and the forms for which are sent herewith to each Inspector. All

returns from School Boards shall be certified by the Secretary or Secretary-Treasurer; those from the Township Clerks shall be certified by these officials; and said returns shall be retained by the Inspector for at least one year as his authority for his official report. The Department of Education Act provides that the Legislative Grants shall be paid by the Minister on or before August 1st. It will accordingly be necessary for the Inspector to act as expeditiously as possible in procuring the information he may need, so as to transmit to the Department of Education, the official forms completely filled in, *not later than June 22nd.*

ASSESSMENTS AND SECTIONS.

(1) In the case of *organized townships* the average section assessment of the township hereinafter referred to is the quotient obtained by dividing by the number of school sections in the township the average of the total assessed values of the township for the three years next preceding the year of distribution.

(2) For the above computation :—

(a) The lands of the supporters of each Separate School shall be counted as a section in forming the divisor.

(b) A union section shall be counted as belonging to the township in which the school building is situated and the assessed value of the portion of the other township or townships completing said union section shall be added to the dividend (see Public Schools Act of 1909, sections 29 and 35).

(c) When there are two schools in a section, the section shall be counted as two sections in forming the divisor.

(3) In the case of *unorganized townships*, the average section assessment hereinafter referred to shall be computed on the average of the total assessed values of the section for three years next preceding the year of distribution.

(4) If, in any year, the assessment of 1906 is reduced in any case, such reduction shall not be recognized by the Education Department, unless satisfactory reasons are submitted, through the Inspector, for said reduction.

SCHEME OF DISTRIBUTION.

The total yearly apportionment to each school, *not including Continuation Schools,** shall be the sum of the grants to which it is entitled under the following regulations :

*The term "Continuation School" (the former Continuation Class Grade A), applies, not to the whole public school, but to the particular division or divisions thereof in which Continuation School work is taught.

I. FIXED GRANTS.

When the average section assessment, as defined above, is less than \$20,000, each school shall receive a fixed grant of \$40; when it is at least \$20,000, but less than \$30,000, the fixed grant shall be \$30; when it is at least \$30,000, but less than \$40,000, the fixed grant shall be \$25; and where it is at least \$40,000, but less than \$50,000, the fixed

grant shall be \$20; where it is \$50,000 or over there shall be no fixed grant. Only half the grant will be paid in cases of Schools which have been open only one full term; but a further allowance will be made proportionately to the time such schools were in operation during the second term.

II. GRANTS PAYABLE ON TEACHERS' SALARIES.

Each school shall receive 40 per cent. of the amounts paid in teachers' salaries each school year (beginning in August and ending in June) up to a maximum of \$600 salary in the case of each teacher, the computation beginning as follows:

- (1) At \$100, where the average section assessment, as defined above, is less than \$20,000;
- (2) At \$150 for a Principal and \$100 for an assistant where the average section assessment, as defined above, is \$20,000 or over.

III. GRANTS ON THE TEACHERS' QUALIFICATIONS.

The following grants shall be paid on the basis of the grades of the teachers' professional certificates and the length of their successful experience, *the competency of each teacher being attested by the Inspector of the school for which such grant is claimed.* The grant shall be one-half of the amount if the teacher of the school holds such certificate for less than a year, but for at least half a year:

- (1) If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1st next:

- (a) For a Provincial Professional First Class Certificate..... \$50
- (b) For a Provincial Professional Second Class Certificate..... 40

- (2) If said experience shall have been less than five years on the same date:

- (a) For a Provincial Professional First Class Certificate..... \$40
- (b) For a Provincial Professional Second Class Certificate..... 30
- (c) For a Professional Third Class (both permanent and limited)
or a Provincial Ungraded Permanent Certificate..... 25
- (d) For a Professional District Certificate 20

GRANTS ON EQUIPMENT AND ACCOMMODATIONS.

- (1)—(a) Where the average section assessment, as defined above, is under \$20,000, each school shall receive a grant of \$30; and where it is at least \$20,000 and under \$30,000, a grant of \$25, said grants to be applied to the improvement of the equipment and accommodations.

- (b) No school which has not been in effective operation for at least one term shall be entitled to the above grant.

- (c) The above grants for the improvement of equipment and accommodations shall be expended by the School Boards under the advice of

the Inspector; and the improvements, with the items of expenditure, shall be reported to him by the School Boards, before August 1st of the year next following the receipt of the grant.

(2) Where the average section assessment as defined above is \$30,000.00 or over, a grant will be made by the Minister to each Inspectorate at the rate of \$20.00 for each principal, and \$2.50 for each assistant (*not including the teachers of Continuation Schools*) where the school has been in effective operation for at least one term, and the total sum of said grants shall be sub-apportioned by the Inspector concerned amongst his schools with said assessment, on the basis of the value of the equipment and the character of the accommodation in accordance with the following scheme:

(a) Each school shall receive 10 per cent. of the approved value of the equipment up to a maximum of \$20 for each Principal and \$2.50 additional for an assistant; the items of the equipment on which the valuation is made being those prescribed in Circular No. 33, 1907, and provided in the school. The special equipment for Continuation Schools and Fifth Classes (the former Continuation Classes, Grades A, B, and C) shall not be included.

(b) Each school shall receive a grant on the character of its accommodations, the maximum being \$30 for a one-teacher school, \$45 for a two-teachers school, and \$60 for a school with more than two teachers, in accordance with the provisions of Circular No. 33, 1907, in regard to accommodations, and in accordance with the following scheme:

Grade.	One teacher.				Two teachers.				Three teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Closets	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Water supply....	2 00	1 50	1 00	50	2 00	1 50	1 00	50	3 00	2 25	1 50	75
School grounds..	4 00	3 00	2 00	1 00	5 00	3 75	2 50	1 25	6 00	4 50	3 00	1 50
School buildings	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Class rooms....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Halls.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Cap rooms	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Private rooms..	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Desks.....	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Blackboards....	1 00	75	50	25	1 50	1 10	75	40	2 00	1 50	1 00	50
Lighting	2 00	1 50	1 00	50	3 00	2 25	1 50	75	4 00	3 00	2 00	1 00
Heating.....	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
Ventilation.....	4 00	3 00	2 00	1 00	6 00	4 50	3 00	1 50	8 00	6 00	4 00	2 00
	30 00	22 50	15 00	7 50	45 00	33 70	22 50	11 30	60 00	45 00	30 00	15 00

(c) When the amount of the Legislative Grant to the inspectorate is insufficient to provide for each school the sums required under the preceding regulations, the Inspector shall make a *pro rata* deduction from the total grant to each school; and where there is a balance over after making the provision for each school as required by the said regulations, he shall make a *pro rata* addition to the total grant to each school.

(d) In order that the Department may apportion the correct amount to each Inspectorate for the grant for equipment and accommodations, each District Inspector shall notify the Minister not later than July 1st of the number of teachers in his Inspectorate reckoned as in (2) above.

(e) A return of the total grant on equipment and accommodations as sub-apportioned by the Inspector to each school shall be made by him to the Department of Education, not later than November 1st, and shall be payable by the Minister not later than December 1st, direct to the school Board.

GRANTS TO ASSISTED SCHOOLS.

In accordance with the statutory provisions, further grants will be made to assist special cases of hardship in school sections and in settlements where there is yet no school organization, for teachers' salaries and for such other purposes as the Minister of Education may deem expedient. Such grants will be made on the report of the Inspector concerned, who shall set forth in full detail on or before the first of November of each year, in a form to be obtained from the Department of Education, the conditions which, in his judgment, necessitate such grants.

SPECIAL GRANT FOR RURAL SCHOOL LIBRARIES.

The special grant of \$6,000.00 in aid of Rural School Libraries will be distributed amongst the Rural Public and Separate Schools of the whole Province, *not including Continuation Schools or Fifth Classes*, as a percentage on the value of all books purchased between October 1st, 1908, and October 1st, 1909, provided no school shall receive more than \$10.00, and provided no purchase is less than \$10.00. *The books shall also have been approved by the Inspector as especially suitable for the pupils' use.*

All applications for this grant must be made by the Trustees through the Inspector, on or before the 15th day of October. The Trustees shall supply the Inspector with all the information he may require, in regard to the purchases of the books, including vouchers from the booksellers.

The Inspector shall make application to the Department of Education on a form to be provided, which must be forwarded to the Department of Education not later than the first day of November.



Instructions to Public and Separate School Inspectors, 1909.

DISTRIBUTION OF THE LEGISLATIVE GRANT TO PUBLIC AND SEPARATE SCHOOLS IN THE URBAN MUNICIPALITIES.

At its recent session the Legislature voted the sum of \$60,000, to be distributed, subject to the Regulations of the Department of Education, amongst the Public and Separate Schools in urban municipalities, on the bases of the grade of the teachers' certificates and the length of their successful experience. (Sect. 6 (*d-e*) Department of Education Act.)

This grant which is to be applied exclusively as an addition to the teachers' salaries will be apportioned amongst the urban Public and Separate Schools in accordance with the following regulations, and the Inspector will fill in accordingly the accompanying schedules :

Urban Municipalities in the Organized Counties.

I. *In Cities.*

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1st next, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$20.00 |
| (b) For a Provincial Second Class Certificate | \$15.00 |

2. If said experience shall have been less than five years on the same date the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$15.00 |
| (b) For a Provincial Second Class Certificate | \$10.00 |

3. For a permanent Third Class Certificate the grant shall be \$7.50

II. *In Towns.*

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1st next, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$30.00 |
| (b) For a Provincial Second Class Certificate | \$22.50 |

2. If said experience shall have been less than five years on the same date, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$22.50 |
| (b) For a Provincial Second Class Certificate | \$15.00 |
| 3. For a Permanent Third Class Certificate the grant shall be | \$11.25 |

III. *In Villages.*

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least first years on July 1st next, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$40.00 |
| (b) For a Provincial Second Class Certificate | \$30.00 |

2. If the said experience shall have been less than five years on the same date, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$30.00 |
| (b) For a Provincial Second Class Certificate | \$20.00 |

- | | |
|---|---------|
| 3. For a Permanent Third Class Certificate the grant shall be | \$15.00 |
|---|---------|

Urban Municipalities in the Districts.

IV. *In Urban Municipalities with a Population of 1,500 or over.*

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1st next, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$40.00 |
| (b) For a Provincial Second Class Certificate | \$30.00 |

2. If the said experience shall have been less than five years on the same date, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$30.00 |
| (b) For a Provincial Second Class Certificate | \$25.00 |

- | | |
|---|---------|
| 3. For a permanent or ordinary Third Class Certificate the grant shall be | \$20.00 |
|---|---------|

- | | |
|--|---------|
| 4. For a District Certificate the grant shall be | \$15.00 |
|--|---------|

V. *In Other Urban Municipalities.*

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1st next, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$50.00 |
| (b) For a Provincial Second Class Certificate | \$37.50 |

2. If the said experience shall have been less than five years on the same date, the grant shall be—

- | | |
|---|---------|
| (a) For a Provincial First Class Certificate | \$37.50 |
| (b) For a Provincial Second Class Certificate | \$31.25 |

3. For a permanent or ordinary Third Class Certificate the grant shall be \$25.00
4. For a District Certificate the grant shall be \$18.75

VI. The competency of each teacher shall have been duly attested by the Inspector of the school for which the grant is claimed.

VII. The grant shall be one-half of the amount if the teacher of the school has held the certificate for less than a year, but for at least one term. In his report the Inspector will indicate this by inserting the numeral 1 in the proper column.

VIII. If the Legislative grant of \$60,000 is not sufficient for, or if there is a balance over, the apportionment to the Public and Separate Schools in the urban municipalities in the counties and districts, on the foregoing bases, the Minister may make a *pro rata* adjustment in the case of each grade.

NOTE.—Where there are more than one municipality, the Inspector will report them separately, placing together in each municipality the certificates of the same grade. He will also in all cases arrange the grades in the order of the circular.

EDUCATION DEPARTMENT,
May, 1909.



Departmental Examinations in Territories Without County Organization.

The cost of conducting these examinations will be defrayed as follows :—

I. HIGH SCHOOL ENTRANCE EXAMINATION.

The Minister of Education will pay the cost of presiding, of reading the answer-papers, and of recording and reporting the results, and any necessary travelling expenses as provided in sections 14, 15, 16 and 17 of Cir. 57a.

II. MODEL, NORMAL, AND FACULTY ENTRANCE AND THE JULY MATRICULATION EXAMINATIONS.

The Minister of Education will pay the cost of presiding at \$4 a day, and the usual cost of conveyance for one return trip between the Presiding Officer's place of residence and the centre at which he presides.

III. For all the above examinations the School Board at each centre shall pay the cost of the stationery and other necessary supplies and all other incidental expenses.

IV. Requisitions for payments as in I. and II. above must be made immediately after the close of such examination, to the Deputy Minister of Education. Such requisitions must be accompanied by full particulars and vouchers for all payments made and must be certified to by the Public School Inspector.

V. Candidates at any centre in a territory without county organization, are not required to pay fees for any of the above examinations.

Cir. 15c
2,500 July, 1909



The accompanying extracts from the Statutes are sent for the information of Inspectors, Municipal Clerks and other Officers so that the law regarding assessment returns and school census may be complied with in every respect.

A. H. U. COLQUHOUN,
Deputy Minister of Education.

Toronto, February, 1909

SECTIONS OF *THE PUBLIC SCHOOLS ACT* AS AMENDED IN 1907.

72. It shall be the duty of the clerk of every township :—

2. To give to the public school inspector when requested by him, a statement of the assessed value of each school section as shewn by the revised assessment roll for the year, and at the request of any board of trustees to furnish the board with a statement shewing the several parcels or lots of land composing the school section for which they are trustees, the assessment of each parcel or lot and the amount of taxes entered on the collector's roll against each parcel of such lands, and the population of each school section between the ages of five and sixteen years. The cost of preparing the latter statement shall be paid by the board of trustees applying for the same.

RETURN OF ANNUAL CENSUS.

73. (1) It shall be the duty of the clerk of every county to make a return to the Minister of Education showing the population of each minor municipality within the county, and of the clerk of every city and of every town separated from a county to make a return showing the population of such city or town, as shown by their respective assessment rolls for the previous year, said returns to be made on or before the first day of April in each year.

(2) It shall be the duty of the clerk of every county to furnish the Public School inspector forthwith on demand with such school statistics in regard to assessments as the Minister of Education may direct.

SECTIONS OF *THE ASSESSMENT ACT* AS AMENDED IN 1908.

29. (1) The assessors of every municipality shall enter in a book to be provided by the clerk of the municipality in the form set forth in Schedule "C" to this Act, the name, age and residence of every child between the ages of eight and fourteen years resident in the municipality, the name and residence of such child's parent or guardian, with an indication as to whether such parent or guardian is a Public School or Separate School supporter, and shall return the said book to the clerk of the municipality with the assessment roll for the use of the truant officer and others.

(2) It shall be the duty of the clerk of the municipality to send to the office of the Minister of Education as soon as he has received the said book, a statement showing the aggregate number of children between the ages of eight and fourteen entered by the assessors in the said book.

30. The assessors of every municipality shall make an annual census of all the children in the municipality between the ages of five and sixteen years and between the ages of five and twenty-one years. The clerk shall report such census to the public school inspector and to the secretary of the board of education or trustees. In the case of townships the clerk shall report to the inspector of the division and to the secretary of each school section.

SCHEDULE C.

(Section 29.)

Census of all children between the ages of eight and fourteen in the city, town, village or township (as the case may be) of

Name of Child.	Age.	Public or Separate School Supporter.	Parent or Guardian.	Residence.

RETURN

Giving a complete list of all Text books on the Authorized List for Public and High Schools, with dates of authorization, names of authors, royalties or other considerations paid to them respecting such books, and selling price of the books, and how prices are arranged.

EDUCATION DEPARTMENT,
Toronto, April 16, 1906.

RETURN, giving a complete list of all Text-books on the Authorized List for Public and High Schools, with dates of authorization, names of authors, positions occupied by such authors, royalties or other considerations paid to them respecting such books, and selling price of the books, and how prices are arranged.

Public Schools.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale	
First Reader, Part I.	December 18, 1884.	The Copp, Clark Company, Limited.	<p>Various:— The selections for the series being made, arranged or edited for the Education Department, by John E. Bryant, M. A. Luther E. Embree, M. A. and Robert Little</p>	<p>Principal Galt Coll. Inst.; later editor and journalist Principal Coll. Inst. Parkdale. Public School Inspector.</p>	<p>The following a'mts appear in the Public Accts. of 1884-1885, as paid to the authors of this series of Reading Books, as consideration paid to them respecting such books \$2,780 00 \$ 750 00 (To widow.) \$1,500 00</p>	\$0 10	Adiscount of twenty-five per cent. is allowed off retail prices to any purchaser of one dozen copies and upwards at one time while a discount of twenty-five per cent. and ten per cent. is allowed off retail prices on purchases of the value of One Thousand Dollars and upwards at one time.	Prices are fixed by the Minister of Education before authorization, with a provision in the general contract form for a reduced retail price, under certain conditions.
First Reader, Part II.	do	The Canada Publishing Company, Limited, and The W. J. Gage Company, Limited, all of Toronto.				0 15		
Second Reader	do					0 20		
Third Reader.	do					0 30		
Fourth Reader	do					0 40		In the case of the Second, Third and Fourth Books of this series, the present retail prices are the result of a reduction made in 1896, for the decade ending June 30th, 1906.
Public School Phonic Primer, Part I.	August, 1902. Revised edition January, 1904	The Canada Publishing Company, Limited, Toronto.	Prepared under the supervision of Dr. D. J. Goggin.	Editor for the Canada Publishing Company, Limited.	The Royalty payable is a matter of private arrangement between each author, and his publisher, and is not generally disclosed. It varies according to the nature of the book, the standing of the author, probabilities, etc. Broadly expressed, the limit is ten per cent. on the retail price of the book.	0 10	A discount of twenty per cent. is made on one dozen copies and upwards. On sales of value of \$100.00 the discount is twenty per cent. and five per cent.; on lots in value of \$500.00, twenty per cent. with five per cent. and an extra five per cent.	Prices fixed by Minister of Education before authorization.
do do Part II.	August, 1902.	do do	Mrs. Mattie Rose Crawford	Wife of Rev. John Crawford, B. A.		0 15		

Modern Phonic Primer. Part I.	May 15th, 1902	Morang & Co'y, Limited, Toronto.	Arranged by Misses Bell, Shepherd and Leuning.	Teachers in the Public Schools, City of Toronto.	A royalty of <i>five per cent.</i> on the retail price is paid to authors of this Primer. The sum of \$600 was paid in cash to the two parties named for their work in connection with this book.	0 10	A discount of <i>twenty-five per cent.</i> is allowed off retail price on one dozen copies and upwards at one time, with an extra <i>five per cent.</i> on lots in value of \$1,000.	In arranging the price, consideration had to be taken of the price of the older books in use on the same subject, the cost of publication, trade discounts, royalty, etc.
do Part II.	February 24th, 1904	do do	Arranged by John Dearness and Sidney Silcox.	Vice-Principal London Normal School. Public School Inspector, St. Thomas.		0 15		
High School Reader	Original edition : June 29th, 1887 Edition with notes : Sept'mb'r 17th, 1894	The Hunter-Rose Co'y, Limited, Toronto.	J. E. Bryant, M.A., for the Reader. Luther E. Embree, M.A., for the notes.	High School Master, journalist, etc. Principal Coll. Inst. Parkdale.	The \$1,100 paid by the publishers for the right to publish the Reader covered the cost of compilation of the Reader. The publishers paid \$300 to Mr. Embree for the notes on the Reader.	0 50	A discount of <i>twenty-five per cent.</i> off retail price on sales of <i>one dozen</i> and upwards; on purchases of <i>value of \$100, twenty-five per cent.</i> ; on purchases of <i>value of \$500, twenty-five per cent.</i> with <i>five per cent.</i> and an extra <i>five per cent.</i>	The publication of this book was obtained by the publishers by tender, with offer of bonus for cost of author's work; grade of discounts, at price fixed by the Minister of Education.
Public School Arithmetic	September 1st, 1900	The Canada Publishing Co'y, Limited, Toronto.	Wm. Scott, B.A. Chas. A. Barnes, M.A.	Principal Normal School, Toronto. Public School Inspector, East Lambton.	See Public School Phonic Primer for remarks upon royalty.	0 25	A discount of <i>twenty-five per cent.</i> is allowed upon purchases of <i>one dozen</i> and upwards at one time; on lots in value of \$36, <i>twenty-five per cent.</i> , and <i>five per cent.</i> , and on lots of value of \$125, <i>twenty-five per cent.</i> and <i>extra five per cent.</i> with an	Price fixed by Minister of Education before authorization, taking into consideration the cost of publication, discounts, royalty and probable sales, and reasonableness of price to schools.
Public School Algebra and Euclid	Sept'mb'r 17th, 1894	The Hunter-Rose Co'y, Limited, Toronto.	A. C. McKay, B.A.	Professor of Mathematics, McMaster University.	A royalty of 2½ cents is payable to the author per copy.	0 25	do do	do do

RETURN, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc.—*Continued.*

Public Schools.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
Public School Geography	June 8th, 1900	The Canada Publishing Co'y, Limited, Toronto	Charles Clarkson, B.A., and George K. Powell	Coll. Inst. Principal (now deceased) Public School Teacher, Toronto.	See Public School Phonics Primer for remarks on royalty.	\$0 75	A discount of 25% is given on one dozen copies and upwards at one time; on purchase of value of \$108, 25% and 5%, and on purchases of value of \$375, 25% and 5% and an extra 5%.	Price fixed by Minister of Education before authorization, taking into consideration cost of publication, discounts, royalty and probable sales, and a reasonable retail price to schools.
Morang's Modern Geography	August, 1902...	Morang & Co'y, Limited, Toronto.	Adapted for Canadian schools from the Geography of Prof. Tarr and McCurry by W. C. Campbell.	Professors respectively in Cornell and Columbia Universities, U.S.A.	Royalty of ten per cent. payable on retail price to the Macmillan Co'y with whom the publishers arranged for the Canadian rights.	0 75	A discount of 25% is given on purchases of one dozen and upwards at one time, with 5% extra for cash.	In arranging prices consideration had to be taken of the price of the older book in use on the same subject, and also the expense in making the book, royalty, etc. Morang & Co'y state that the prices of their books in many cases are below those of the same class of books in the United States and what they would have been in Canada had they not anticipated a considerable sale extending over a number of years.
Our Home and its Surroundings.	May 15th, 1902	do do	do do	do do	do do	0 40	do do	

Rose's Public School Geography	December 23rd, 1904	The Canadian Book Co'y, Toronto. (Dan. A. Rose).	T. H. Follick ... High School Master, Niagara Falls.	A royalty of eight per cent. on the retail price is payable to the author.	0 75	A discount of 25%, with 5% for cash allowed on one dozen copies and upwards; and a discount of 25% and 10% on large lots.	The same retail price as the other books on the same subject.
Public School Grammar	June 8th, 1900	The Canada Publishing Co'y, Limited, Toronto	Hugh I. Strang, B.A. Principal Coll. Inst. Goderich.	See Public School Phonics Primer for remarks on royalty.	0 25	The same discounts allowed as in the case of the Public School Arithmetic	Price fixed by the Minister of Education before authorization, taking into consideration a reasonable retail price to schools, the cost of publication, discounts, royalty and profitable sales.
Morang's Modern English Grammar.	May 15th, 1902, cheaper edition, 1904.	Morang & Company, Limited, Toronto.	Hueber Gray Buehler and Prof. Pelham Edgar. Professor of French, Victoria University.	A royalty of five per cent. on the retail price is payable to the author.	0 60 0 25	A discount of 25% on sales of one dozen and upwards at one time; on lots of value of \$60, 25% and 5%; and on lots of value of \$300, 25% with 5% and 5% extra for cash.	Morang & Co. state that the prices of their books in many cases are below those of the same class of books in the United States, and what they would have been in Canada had they not anticipated a considerable sale extending over a number of years.
Public School History of England and Canada.	August 24th, 1892.	The Copp, Clark Company, Limited, Toronto.	W. J. Robertson, B.A. English Master, Coll. Inst., St. Catharines.	See Public School Phonics Primer for remarks on Royalty.	0 30	A discount of 25% with 5% for cash is allowed on sales of one dozen and upwards. On lots of value of \$150, 25% with 5% and an extra 5% for cash.	Fixed by Minister of Education before authorization, etc.

RETURN, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc.—Continued.

Public Schools.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
History of the Dominion of Canada. (Fifth Form.)	July 21st, 1897.	The Copp, Clark Company, Limited, and The Methodist Book and Publishing House, Toronto.	W. H. P. Clement, B.A., LL.B.	Now a Judge residing at Grand Forks, B. C.	A royalty of 10% is payable to the author.	\$0 50	A discount of 25% with 5% for cash is allowed on one dozen copies at one time. On sales of value of \$200, 25% with 5% and an extra 5% for cash.	Fixed by Minister of Education before authorization, etc.
Duncan's Story of the Canadian People.	December 23rd, 1904.	Morang & Company, Limited, Toronto.	David M. Duncan, B.A.	Head Master, Coll. Inst., Winnipeg.	A royalty of 10% is payable to the author.	0 50	A discount of 25% is allowed to the trade.	Consideration taken of price of the older book on the same subject, expense of publication, royalty, etc.
Weaver's Canadian History.	December 23rd, 1904.	The Methodist Book and Publishing House jointly with The Copp, Clark Company, Limited.	Emily P. Weaver	Her time given to literary work.	A royalty of 10% is payable to author on price of book.	0 50	A discount of 25% with 5% for cash is allowed on small quantities, with 25% and 10% on gross lots.	do do
Public School Drawing Course.	June 8th, 1900.	The Canada Publishing Company, Limited, Toronto.	A. C. Casselman.	Writing and Drawing Master, Normal and Model Schools, Toronto.	See Public School Phonic Primer for remarks on royalty.	0 05 per number.	A discount of 25% with 5% for cash is allowed on sales of one dozen and upwards; on lots of the value of \$300, a discount of 25% with 5% and an extra 5% for cash.	Fixed by the Minister of Education before authorization, etc.

Public School Physiology and Temper- ance.	November 13th, 1893....	The Methodist Book and Pub- lishing House, Toronto.	William Nattress, M.D., M.R.C.S., Eng.	Medical Practitioner, Toronto.	A royalty of ten per cent. is payable to the author, on retail price of book	25	A discount of 25% with 5% for cash is allowed on sales of one dozen and upwards at one time. On lots of value of \$36, the discount is 25%, with 10% for cash. A discount of 25% is allowed on one dozen copies and dozen upwards; on \$100 worth, 25% and 10%; on \$500 worth 25% and 10% with an extra 5% for cash.	Fixed by the Min- ister of Education before authoriza- tion, etc.
Public School Copy Book.	August, 1899..	W. J. Gage and Company, Lim- ited, and also subsequently by The Canadian Publish'g Com- pany, 1902.	A. C. Casselman.	Writing and Draw- ing Master, Toron- to Normal and Model Schools.	See Public School Phonic Primer for remarks on royal- number. ty.	07	A discount of 25% is allowed on one dozen copies and dozen upwards; on \$100 worth, 25% and 10%; on \$500 worth 25% and 10% with an extra 5% for cash.	do
Practical Spel- ler.	August 25th, 1898, as "Op- tional"; regu- larly added to list August 16th, 1899.	The W. J. Gage and Company, Limited, Toron- to.	Jas. L. Hughes, I.P.S.	School Inspector, City of Toronto.	A royalty of ten per cent. is payable on the retail price to the author.	25	A discount of 25% is allowed on sales of one dozen and upwards; on lots in value of \$36, 25% and 5%, and on lots in value of \$126.00 25% and 10%.	do
Public School Book-keeping.	August, 1900 as "Optional"; regu- larly added to ded to list August, 1902.	The Copp, Clark Company, Lim- ited, Toronto.	J. S. Black	Formerly Commer- cial Master, Coll. Inst., Chatham.	See Public School Phonic Primer for remarks on royal- ty.	25	No arrangement as to discounts; usual trade terms will doubtless rule.	do
Public School Agriculture.	August 25th, 1898, as "Op- tional"; regu- larly added to list August 16th, 1899.	Morang & Com- pany, Limited, Toronto.	Charles C. James, M.A.	Deputy Minister of Agriculture for Ontario, formerly Professor of Chem- istry at Ontario Ag- ricultural College, Guelph.	A royalty of five cent. is payable on this book.	30	A discount of 25% on one dozen and upwards at one time; on lots of value of \$36, 25% and 5%; on lots of value of \$125, 25% and 5% and 5%.	do
Public School Domestic Science. (Optional.)	August, 1898, as "Optional."	The Copp, Clark Company, Lim- ited, Toronto.	Mrs. J. Hoodless.	Inspector and Lec- turer on Domestic Science.	See Public School Phonic Primer for remarks on royal- ty.	50	No arrangement as to discount; usual trade terms doubt- less rule.	do

Return, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc. — *Continued.*

High Schools and Collegiate Institutes.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
High School Reader.	(See information in regard to this book on page 3 of this Return.)							
The Principles and Practice of Oral Reading.	December 8th, 1904.	The Canada Publishing Company Limited, Toronto.	Miss E. A. Marty	Teacher, Coll. Inst., Ottawa.	See Public School Phonio Primer for remarks on royalty.	\$0 50	No special agreement; usual trade will doubtless rule.	Price arranged with Education Department prior to authorization.
High School English Grammar.	Original edition, June 29th, 1889. Revised edition, June 8th 1900.	do do	John Seath, M.A., LL.D.	High School Inspector for Ontario.	do do	0 75	A discount of 25% allowed on one dozen copies and upwards. On purchase of value of \$108, 25% and 5%; \$324 in value, 25% with 5% and an extra 5%.	Price fixed by Minister of Education before authorization, etc.
High School English Composition.	June 29th, 1887.	do do	Wm. Williams, B.A.	High School Master, Collingwood.	do do	0 50	A discount of 25% allowed on sales of one dozen and upwards. On gross lots, 25% and 5% On lots of 500 copies or more, 25% and 5% with an extra 5%.	do do
Elementary English Composition.	August, 1902.	The Copp, Clark Company, Limited, Toronto.	Fred. H. Sykes, B.A., Ph.D.	Formerly English Master in Coll. Inst. Parkdale, now professor in Columbia University, New York City.	do do	0 40	No special agreement—usual trade terms will doubtless rule.	Price arranged with Education Department before authorization.

RETURN, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc. — *Continued.*

High Schools and Collegiate Institutes.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
High School Composition from Models.	August 15th, 1895.	The Copp Clark Company, Limited, Toronto.	W. J. Alexander, Ph. D. M. F. Libby, B.A.	Professor of English, University of Toronto. Formerly teacher in Parkdale Coll. Inst. now a professor in University of Colorado, U.S.	See Public School Phonic Primer for remarks on royalty.	\$0 75	A discount of 25% and 5% for cash on one dozen copies and upwards. On sale of value of \$150, 25% with 5% and extra 5% for cash.	Prices arranged with Education Department before authorization.
High School Geography.	Original edition, June 29th, 1887. Present new edition, July 23rd, 1904.	The Canada Publishing Company, Limited, Toronto.	George A. Chase, B.A.	English Master, Jarvis St. Coll. Inst., Toronto.	do do	1 00	A discount of 25% allowed on one dozen copies and upwards. On one gross, 25% and 5%; on sales of 500 copies or more 25% and 5% and 5%.	do do
Morang's Modern Geography.	(See information as to this book on page 4 of this Return).							
High School History of England and Canada.	June 19th, 1891.	The Copp, Clark Company, Limited, Toronto.	W. J. Robertson, B.A., LL.B.	English Master Coll. Inst., St. Catharines.	do do	0 65	A discount of 25% and 5% for cash on one dozen copies and upwards. On lots of value of \$150, 25%, and 5% and 5% for cash.	Fixed by the Minister of Education before authorization.

Wrong's British Nation.	The July 23rd, 1904.	Morang and Company, Limited, Toronto.	(George M. Wrong, M.A.	Professor of History, University of Toronto.	A royalty of ten per cent. is paid to the author on this book.	\$1 00	The trade discount is 25%.	Publishers had to take into consideration the price of another book in use on same subject, also expense of making the book, trade discount, royalty, etc.
Myers' Ancient History, and Greece (Rome), Canadian Edition)	1901.	The Copp, Clark Company, Limited, Toronto.	P. G. N. Myers.	Professor of History, etc., in the Univ. of Cincinnati.	See Public School Phonics Primer for remarks on royalty.	0 75	No arrangement as to wholesale price. Usual trade terms will probably rule.	Retail price arranged with Education Department before authorization.
Botsford's Ancient History for Beginners.	July 23rd, 1904.	Morang and Company, Limited, Toronto.	George W. Botsford, Ph.D.	Professor in Columbia University.	A royalty of 10% is paid to the Macmillan Company, on the retail price, from whom the Morang Company arranged for the Canadian rights of this book.	1 00	The trade discount is 25%.	Publishers had to take into consideration the price of another book in use on same subject, also expense of making the book, discount, royalty, etc.
History of the Dominion of Canada. (Clement) High School Arithmetic.	June 4th, 1891	The Hunter Rose Company, Limited, Toronto.	W. H. Ballard, M.A. A. C. McKay, B.A. R. A. Thompson, B.A.	School Inspector, Hamilton. Prof. Mathematics, McMaster Univ'y. Principal Collegiate Inst., Hamilton.	A royalty of six cents per copy is payable to the authors.	0 60	A discount of 25% is allowed on sales of one dozen copies and upwards; on lots of value of \$86.40, 25% and 10%; on lots of value of \$500, 25% and 10% with additional 5%.	Price fixed by Minister of Education before authorization, etc.
Arithmetic for High Schools (De Lury.)	for July 23rd, 1904	The Canada Publishing Company, Toronto.	A. T. De Lury, B.A., Ph.D.	Associate Professor of Mathematics, University of Toronto.	See Public School Phonics Primer for remarks on royalty.	0 60	No arrangement as to wholesale price; usual trade terms will probably rule.	Retail price arranged with Education Department before authorization.

RETURN, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc.—*Continued.*

High Schools and Collegiate Institutes.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
High School Algebra.	June 29th, 1887	The Methodist Book and Publishing House, Toronto.	W. J. Robertson, B.A., LL.B. I. J. Birchard, M.A., Ph.D.	Mathematical Master Coll. Inst., St. Catharines. Mathematical Master Jameson Ave. Coll. Institute, Toronto.	A royalty of fifteen per cent. on retail prices payable to the authors.	\$0 75	A discount of 25% is allowed on sales of one dozen copies and upwards; on lots of value of \$108, 25% and 10%.	Price fixed by Minister of Education before authorization.
Elements of Algebra (McLellan.)	June 29th, 1887	The Canada Publishing Company, Limited, Toronto.	J. A. McLellan, M.A., LL.D.	Principal of Normal College, Hamilton, formerly Director of Normal Schools and Institutes.	See Public School Phonic Primer for remarks on royalty.	0 75	A discount of 25% is allowed on sales of one dozen and upwards; on one gross 25% and 5%; on 500 copies 25% and 5% and 5%.	do do
Elementary Plane Geometry (Baker.)	July 23rd, 1904	W. J. Gage & Co., Limited, Toronto.	Alfred Baker, M.A.	Professor of Mathematics, University of Toronto.	A royalty of ten per cent. is payable to the author.	0 50	No arrangement as to a wholesale price.	Retail price arranged with the Education Department before authorization.
Geometry for Schools, Theoretical. (Baker.)	August 9th, 1905.	do do	do	do	do do	0 75	do do	do do
High School Euclid (J. S. McKay.)	June 29th, 1887	The Hunter Rose Company, Limited.	J. S. McKay, M.A., F.R.S.E.	Mathematical Master in the Edinburgh Academy.	A royalty of 6d. per copy payable to W. & R. Chambers, Edinburgh. (£40 paid same firm for the plates).	0 50 or 0 75	do do	Retail price fixed by the Minister before authorization.
High School Euclid (McKay and	August 17th, 1902.	The Hunter Rose Co., Limited.	Alex. Chas. McKay, B.A., and R. A. Thompson,	Prof. Mathematics, McMaster Univ. Principal Coll. In-	A royalty of 7½ cts. per copy payable to the authors.	0 50	A discount of 25% is allowed on one dozen copies and	Retail price fixed by the Minister before authorization.

Thompson.)	First Latin Book and Reader.	Original edition August 24th, 1892; amended edition August, 1900.	The Copp, Clark Company, Limited, Toronto.	J. Henderson, M.A., and J. Fletcher, M.A.	stitute, Hamilton.	upwards; on lots of \$50 worth 25% and 5%, with 5% for cash; on lots of value of \$250 25% and 5% with 5% and an extra 5% for cash. A discount of 25% with 5% for cash allowed on one dozen copies and upwards; on lots of value of \$150, 25% and 10%.	do	do	tion.
	Primary Latin Book and Reader.	do	The Methodist Book and Publishing House, Toronto.	Adam Carruthers, M.A., and J. C. Robertson, B.A.	Classical Master Coll. Institute, St. Catharines. Professor in the University of Toronto.	1 00	do	do	
	Hagarty's Latin Grammar.	September 30th, 1904.	Morang & Company, Limited, Toronto.	E. W. Hagarty, B.A.	Lecturer in Greek, Univ. of Toronto. Associate Prof. of Greek, Victoria Univ., Toronto. Classical Master Harbord St. Coll. Inst., Toronto.	1 00	do	do	Considerat'n taken of price of older books on same subject, 'also expense of making the book, royalty, etc.
	White's First Greek Book.	July 25th, 1904	Imported in sheets by the Copp, Clark Co. from Ginn & Co., Boston, and bound here.	J. W. White, Ph.D., LL.D.	Prof. of Greek in Harvard University.	1 25	No arrangement known, but usual trade terms for such books will probably rule	do	Retail price arranged with Department.
	High School Beginners' Greek Book.	1895.....	do	do	do	\$1 50	do	do	do
	High School French Grammar and Reader.	Amended edition July 20, 1900.	The Copp, Clark Company, jointly with the Hunter, Rose Company.	W. H. Fraser, B.A., and J. Squair, B.A.	Professor in the University of Toronto. do	1 00	A discount of 25% and 5% for cash allowed on one dozen and upwards. On lots of value of \$150, 25%, with 5% and an extra 5% for cash.	Price fixed by the Minister of Education before authorization.	

RETURN, giving a complete list of all Text-Books on the authorized list for Public and High Schools, etc.—*Continued.*

High Schools and Collegiate Institutes.	Date of authorization.	Publishers.	Names of authors.	Positions occupied by such authors.	Royalties or other considerations paid to them respecting such books.	Selling price of books.		How prices are arranged.
						Retail.	Wholesale.	
High School Ger. Gram'r and Reader.	June 29, 1887.	The Copp, Clark Company, Limited, Toronto.	W. H. Vander-smissen, M.A., and W. H. Fraser, B.A.	Professor in University of Toronto. do do	See Public School Phonie Primer for remarks on royalty.	1 00	A discount of 25% on one dozen lots and upwards. On gross lots, 25% and 5%. On 500 copies, 25% and 5%, with an extra 5%. A discount of 25% on one dozen copies and upwards. On purchases of value of \$72, 25% and 5%. On purchases of value of \$250, 25% and 5%, with an extra 5%.	Price fixed by the Minister of Education before authorization.
High School Physical Science, Part I.	August 15th, 1895.	The Copp, Clark Company, Limited, Toronto.	F. W. Merchant, M.A., D. Paed. and C. Fessenden, M.A.	Formerly Head Master Coll. Inst., London, now Principal London Normal School. Principal Coll. Inst. Peterboro.	do do	0 50	On one dozen copies and upwards. On purchases of value of \$72, 25% and 5%. On purchases of value of \$250, 25% and 5%, with an extra 5%.	do do
do do Part II.	March 26th, 1896.	do do	do do	do do	do do	0 75	A discount of 25% on one dozen and upwards. On lots of value of \$150, 25% and 5%, with an extra 5%. A discount of 25% on one dozen and upwards. On lots of value of \$150, 25% and 5%, with an extra 5%.	do do
High School Chemistry.	Original edition, June 29, 1887. New edition, Aug. 15th, 1895.	The Copp, Clark Company, Limited, Toronto.	A. P. Knight, M.A. and W. S. Ellis, B.A.	Professor, Queen's Univer. Kingston. Head Master Coll. Inst., Kingston.	do do	0 50	A discount of 25% on one dozen and upwards. On lots of value of \$72, 25% and 5%. On purchases of value of \$250, 25 p.c., with 5% and an extra 5%. A discount of 25% on one dozen and	do do
High School Botany, Part	1895.	The W. J. Gage Company, Limited, Toronto.	H. B. Spotton, M.A.	Principal Harbord street Coll. Inst.	A royalty of 10 p.c. is payable to the	0 60	A discount of 25% on one dozen and	do do

II.		ited, Toronto.		author.		
High School Bookkeeping.	June 29, 1887.	The Copp, Clark Company, Limited, Toronto.	H. S. McLean.	Formerly Commercial Master Clinton High School. Now in British Columbia.	See Public School Phonics Primer for remarks on royalty.	0 60 upwards. On lots of value of \$144, 25% and 5%. On lots of value of \$500, 25% and 5%, with an extra 5% for cash. A discount of 25% on one dozen and upwards. On gross lots, 25% and 5%; on 500 copies, 25% with 5% and an extra 5% do do Retail price arranged with Education Department before authorization.
Commercial Course in Practical Bookkeeping.	Dec. 23, 1904.	The Copp, Clark Company, Limited, Toronto.	J. A. Dickenson, and David Young	Commercial Master Coll. Inst., London.	do do	0 40 No arrangement as to wholesale price. Usual trade terms will doubtless rule
High School Drawing Course.	November 23, 1894.	The Canada Publishing Company, Limited, Toronto.	A. C. Casselman.	Principal Public School, Guelph. Drawing and Writing Master Toronto Normal and Model Schools.	do do	0 10 A discount of 25% on one dozen copies and upwards; on lots of value of \$50, 25% and 5%. On lots of \$100, 25% and 5%, with an extra 5%. Price fixed by the Minister of Education before authorization.
High School Cadet Drill Manual (optional).	August, 1898.	The Copp, Clark Company, Limited, Toronto.	Arranged by W. B. Munroe, M.A., LL.B., as selections from the Infantry Drill as revised by Her Majesty's command, and printed by permission of the Controller of Her Majesty's Stationery Office.		do do	0 40 No arrangement as to wholesale price. Usual trade terms will probably rule Price arranged with Education Department before authorization.



THIRD CLASS CERTIFICATES FOR 1908.

The circular of August 28th, 1906, provided as follows:—

“A County Board of Examiners may admit to the Model School

(1) Candidates holding Junior Teachers' certificates, who will be 18 years of age on or before the reopening of the rural Public Schools for the second half of 1907; and

(2) Candidates who will be 18 years of age on or before Sept. 1st, 1906, and who have failed at the Junior Teachers' examination but whose marks warrant the County Board in presuming that, after further study, they will be able to pass the Junior Teachers' examination of 1907.

The professional certificates shall not be issued in either of the above cases until the candidates comply with the present legal requirements as to age and non-professional standing.”

The circular of September 9th, 1907, continued in 1907 only provision (1) of the circular of 1906, and the circular of November 28th, 1907, confirmed the admission of those students who had appealed unsuccessfully.

A considerable number of County Boards appear to have construed, without authority, the provisions of the circular of 1906 as applying to 1907, and admitted students accordingly. Out of consideration for the students who assumed that they had been properly admitted, the Minister of Education has decided to grant certificates to all admitted to the Model Schools who have passed the final examination of the Model Schools and had qualified for admission in terms of the above regulations, provided they have the required academic (non-professional) standing. Such of these students as have not yet secured this academic standing will be required, in order to secure Third Class Certificates, to pass in all the subjects prescribed for the Junior Teachers' examination of 1907, and, accordingly, special papers of last year's standard will be provided for them next July in Geography, English Grammar, and Arithmetic and Mensuration. These papers are only for those students who have passed the Model School examinations but have not yet secured their non-professional standing, and who wish to obtain Third Class Certificates. Candidates for Entrance into the Normal Schools are not required to take them.

Be it noted, however, that the certificates provided for in this circular will be issued by the Minister of Education and not by the County Boards, on submission by the applicant to the Minister of Education of the necessary evidence of competency.



As to Certain Middle School Pupils of 1907-1908 In Connection with the Approved School Scheme.

In answer to numerous inquiries from Principals of non-approved High Schools the following statement as to certain Middle School Pupils has been prepared :—

It has been decided that the Principal must take full responsibility in the matter of issuing certificates on the nine Lower School subjects to the Middle School pupils of last school year (1907-1908) who were not candidates at the July examinations of 1908 or who were unsuccessful candidates thereat. When there were two Middle School classes the reference is to the pupils of the Senior Middle School only. After thorough investigation and examination the Principal will be justified in issuing such certificates to those—and to those only—who have satisfactorily completed the full schedule of Lower School work in the nine subjects in question.

Before issuing any such certificates the Principal should consider carefully Circular 19 (Oct., 1907), 7, (2): "The preparation of the pupils shall have been satisfactory to the Dean of the Faculty of Education and the Principal of the Normal School. In the case of schools in which the preparation has not been satisfactory, the Dean or the Principal shall report the facts to the Minister of Education and to the Inspector concerned."

June 1st, 1909.



ONTARIO
DEPARTMENT OF EDUCATION

Summer School for Teachers

AT THE
Ontario Agricultural College
GUELPH

1909



Agricultural College, Guelph.

RAILWAY ARRANGEMENTS.

NOTE.—Arrangements have been made with the Railway Passenger Association allowing a round trip rate of a fare and a third. Students must get a standard certificate from their local agent at the time of purchasing a single fare ticket to Guelph; the return ticket will then be issued at a one-third rate, provided fifty teachers are in attendance. Every teacher should get the certificate and help to make up the required number.

TERMS AND COURSES.

The term will be for four weeks, commencing Monday, July 5th, and closing Friday, July 30th.

Instruction will be given in five courses, and students may select any one of these; no student will be permitted to take more than one course:

- I. Nature Study.
- II. Elementary Agriculture and Horticulture.
- III. Art and Constructive Work.
- IV. Woodworking and Mechanical Drawing.
- V. Household Science.

Unless ten students enter for a course, a class therein will not be formed.

FEES, SUPPLIES, ETC.

No fee is charged teachers resident in Ontario. Non-resident teachers are charged a fee of Ten Dollars, payable at the opening of the term.

Students are required to furnish their own working materials for art, plant collecting, etc. Any materials supplied by the College to the students and retained by them, are furnished at cost price. Students will be required to pay for laboratory breakages.

FACULTY OF INSTRUCTION.

The instruction given will be under the supervision of the President and the direction of the heads of the College Departments.

Arrangements will be made for special lectures by others interested in matters concerning country life and the industrial phase of education.

SYLLABUS OF STUDIES.

I.—NATURE STUDY.

METHOD OF INSTRUCTION.

The material that lies nearest to hand about the College will be used largely in the instruction. The first day of the course will be spent in making a general survey of the whole College equipment. Only occasionally will it be necessary to leave the College grounds to prosecute studies.

Students will be instructed in making collections of weed seeds, grasses, leaves of trees, insects, etc. Material for this work will be provided by the students themselves.

In general, the mornings will be devoted to work indoors, and the afternoons to work in the fields and woods. When weather will not permit of

field work, laboratory exercises will be substituted. Saturdays will be for all-day excursions, or reviewing and arranging the week's work. Such students as wish to spend their time in independent work along special lines will be encouraged to do so and given every possible assistance. Students will keep careful records of all their work.

EQUIPMENT.

Students should bring field or opera glasses, pocket knives, pocket magnifying glasses, and any books which they possess and have found useful. As a considerable part of the work is taken in fields, gardens, and woods, women students should also provide themselves with stout boots, walking skirt, handy cap, garden gloves, etc.

COURSE OF STUDY.

In the Nature Study course, the chief object will be to make students acquainted with the common objects about them with a view to teaching the children in the schools. The best methods of teaching will be taken up concurrently with the instruction.



Teachers' Gardens.

The work will necessarily overlap in many subjects with the course in Agriculture, and must be taken as the first course leading to the certificate in Elementary Agriculture and Horticulture. Teachers in town or city graded schools will find their needs best met in this course. Attention will be paid to co-related Art work. Lesson periods are either a whole forenoon or afternoon, or half that length of time.

PLANT STUDIES.

School Gardening (1 lesson): Planning and keeping of garden plots; keeping of garden records; studies of growth in different plants; garden weeds (each student will prepare and care for a small plot). After the garden is planted each teacher's gardening is carried on independently.

Horticulture (4 lessons): Visits to the College orchards, small fruit gardens, vegetable gardens, and flower gardens, to learn of the best varieties of cultivated plants, methods of cultivation, spraying, pruning, etc.

Plant Propagation (8 lessons): Practical lessons on propagation of plants by cuttings, propagation of bulbs, potting, general care of house plants. (Students will be permitted to take the plants, which they propagate, to their homes.)

Field Husbandry (2 lessons): Observation of College fields and experimental plots to learn of the best varieties of field crops, how they are cultivated, harvested, and improved; observation plots of different grains in the school gardens.

Forestry (4 lessons): Observation of College woods and campus to learn the characters and names of our common trees; visits to the forest nurseries to learn how trees are propagated; observation plots of tree seedlings in the school gardens.

Botany (8 lessons): Collection, examination and identification of common plants, such as: (1) weeds of fields, gardens, lawns, and roadsides; (2) common diseases of grains, vegetables, and fruits; (3) grasses and cultivated farm crops; (4) flowering plants in gardens.

Collection and study of common weed seeds.

Simple physiological experiments with plants in garden or laboratory.

Recognition of plant societies on excursions.

ANIMAL STUDIES.

Insects (4 lessons): Collection, examination, and identification of common insects found in the gardens, orchards, fields, and woods; instruction regarding the treatment of insect pests.

Birds (4 lessons): Identification of birds observed on excursions or about the College; studies of skins and mounted specimens in the museum to become acquainted with the common birds of Ontario; visits to Poultry Department to learn about the varieties and care of domesticated birds.

Pond Life: Collection of animal life from streams and ponds; observation of snails, clams, crayfish, fish, tadpoles, etc., in aquaria.

Farm Animals: Observation of the kinds of horses, cows, sheep and pigs kept on the farm; their uses and care.

PHYSICAL NATURE.

Physiography: Observation and recognition of earth forms, the work of streams, etc., to be seen on excursions; study of soils, rocks, gravel pits, and quarries.

Meteorology: Observation of weather; keeping weather records; study of weather maps; making weather charts.

Astronomy (4 lessons): Talks on elementary astronomy; "star-gazes" to learn the best known constellations and stars; interpretation of star-maps.

II.—ELEMENTARY AGRICULTURE AND HORTICULTURE.

COURSE OF STUDY.

The object of this course is to give teachers an elementary training in the scientific principles and practices of modern farming, so that the country or village school may adequately sympathize with and direct the life-interests of country boys and girls.

The course is for teachers who have to deal with Public School pupils and not for students preparing to become experts in the Science of Agriculture. The subjects will be taken up from this view-point.

School Gardening: The work of the Nature Study Course reviewed and continued.

Botany (8 lessons): The work of the Nature Study Course reviewed and continued. Simple experiments in plant physiology.

Field Husbandry (8 lessons): Importance of field crops in the national economy; systems of farming; rotation of crops; fertility of soil; cultivation of the land; classes of farm crops; uses of farm crops; varieties of farm crops; selection of plants; selection of seeds; improvements of crops by means of selection and hybridization; practical tests in connection with Experimental Union; study of work being done in experiments with farm crops in Canada and in the United States.

Examination of field crops on neighbouring farms; the work on the experimental plots; farm crops in the school garden; the agricultural museum; grains, grasses, clovers, roots and fodder crops; laboratory study of the root development of farm crops; types of seeds of common farm crops.

Physics (8 lessons): Application of physics in farming; nature of soils, soil moisture, heat, and air; principles of tillage, and systems of drainage and cultivation; identification of samples of soils; meteorological records.

Agricultural Chemistry (4 lessons): Plant growth and composition, soils; manures and fertilizers.

Bacteriology (4 lessons): Lectures and demonstrations exemplifying the work of bacteria in soil, dairying, plant and animal diseases; an experiment on soil inoculation in the school garden.

Entomology (8 lessons): The work of the Nature Study Course reviewed and continued.

Losses through insects in agriculture and horticulture; classification of insects and laboratory study of types; common beneficial and noxious insects; out-of-door study and collecting in field, garden, orchard, and forest; insecticides; a collection of insects properly mounted and labelled is required; work of the Entomological Society of Ontario and organization of local clubs in connection with it.

Animal Husbandry (4 lessons): Histories and characteristics of principal breeds of live stock; stabling and care; study of College stables and herds; exercises in judging with score cards.

Dairy Husbandry (2 lessons): Dairy breeds, care and stabling; individual cow testing; care of milk and cream.

Poultry (2 lessons): Common breeds; feeding; housing; incubation; individual testing by trap nest; preservation of eggs.

Forestry (4 lessons): Identification of our forest trees; planting seed-beds in school gardens; work in College nursery and in experimental bush; collection of weeds, etc.

CERTIFICATES.

To students who complete satisfactorily two Summer Courses and a Winter Reading Course an Interim Certificate in Elementary Agriculture and Horticulture will be issued by the Department of Education. The course



Macdonald Institute.

in Nature Study should be taken first, preparatory to the second summer's course in Agriculture and Horticulture. Upon evidence satisfactory to the Minister of Education, that the teacher has carried on a school garden, and given adequate instruction in Agriculture and Horticulture in his school work, the interim certificate will be exchanged for a permanent one.

ELEMENTARY INDUSTRIAL ARTS.

The object of the courses is to train teachers in the elements of the Industrial Arts.

The work in the Elementary Industrial Arts consists of two courses; I. Art and Constructive Work, and II. Woodworking and Mechanical Drawing. Only one of these may be taken at a session. Students who expect to attend two sessions are advised to take Course I. first, as a preparation for

Course II. Teachers of the higher grades will find Course II. more suitable for them. The instruction will, as far as possible, follow the departmental course of study outlined for Public Schools. The courses will be taken up at the Manual Training Building, which is equipped with drafting, art, and woodworking rooms, as well as with all necessary tools and appliances. The best methods of teaching this subject will be taken up concurrently with the instruction.

The work covered will be accepted *pro tanto* towards securing a certificate in Elementary Industrial Arts or Specialist's standing in Manual Training.

III.—ART AND CONSTRUCTIVE WORK.

EQUIPMENT.

Students should bring with them any good manuals that they may have on the subjects of the course. The working outfit will include tracing paper, carbon paper, drawing paper (unglazed), Reeve's Water Colours No. 50 A, crayons, charcoal sticks, Japanese brushes and a water cup. These supplies may be purchased from the dealers in Guelph. For material furnished by the College, the students are charged the cost price.

ART.

Art Work: Blob, black and white, flat washes in colour, colour harmonies, colour schemes; drawing of plants, flowers, and insects.

Sketching: Representation of simple landscapes in pencil, crayon, and brush.

Applied Art and Design: Practical applications in everything undertaken in the constructive work.

CONSTRUCTIVE WORK.

Cardboard Work: Thin and thick boards.

Modelling: Clay, sand, and papier-mache.

Simple Book Binding.

Simple Metal Work.

Knife Work: Such as can be carried on in the ordinary class room at the school desk.

INDUSTRIES.

Visits will be paid to local industries to see modern industrial equipment and organization in operation and to learn how fundamental the Art and Constructive work of the school is, *e.g.*, carpet mills, paper box factory, piano factory.

IV.—WOODWORKING AND MECHANICAL DRAWING.

EQUIPMENT.

Students should supply themselves with a set of good drawing instruments and a set of drawing pencils ranging in hardness from HHH to HHHHH. For material provided by the College, students are charged cost prices.

WOODWORKING.

Bench Work: Exercises in making articles requiring joints, mortises, fastenings with dowels, pins, cleats, keys, wedges, glue, screws, and nails.

Estimates of Cost: Calculations of the quantity of lumber required for the articles and the cost.

Tools: Their construction, use, care, and sharpening.

Mechanical Principles: Analysis of the action of cutting tools, cutting angles, etc.

Finishing: Staining, fuming, filling, shellacing, oiling, etc., as required in finishing the articles made.

Forestry and Lumber: Observation and consideration of the properties of the lumbers used, their defects, their preparation in the mills, care, etc.

MECHANICAL DRAWING.

The Drawing will be closely related to the Woodworking. Every exercise will be worked out on paper before the practical work at the bench is commenced.

In the working out of the course great stress is laid on Drawing. "Every workman should for the most part be able to conceive clearly and accurately in his own mind the shape of everything he may have to make or to work with. This makes it the first condition of skill that he should master shape in his own mind, and that mastery requires him to be a geometer."

In the preparation of the working drawings the following branches of the subject will be practised:

(a) The use of squares, triangles, and instruments; (b) Plane geometry practical problems, lines, angles and polygons; (c) Construction and use of plain scales; (d) Orthographic projections of solids—three or more views; (e) Cutting and oblique planes and sections; (f) Isometric projection; (g) Working drawing; (h) Machine drawing; (i) Tracing—blue printing.

V.—HOUSEHOLD SCIENCE.

HOUSEHOLD SCIENCE.

The classes will be held in the Macdonald Institute.

The course will include the following: 28 Practical lessons in Plain Cookery; 12 Practical lessons in Laundry; 12 Lectures on Home Nursing; 6 Lectures on Hygiene.

Students are required to bring with them two plain cotton dresses, at least two large white bib aprons, and two small hand towels for wear in the laundry and cookery lessons. The work in these classes will be practical.

The lessons will be distributed as follows:

TIME-TABLE.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.45— 9.35	Home Nursing	Hygiene	Home Nursing	Hygiene	Home Nursing	
9.35—12.05	Cookery	Cookery	Cookery	Cookery	Cookery	
1.30— 4.00	Laundry	Cookery	Laundry	Cookery	Laundry	

No certificate will be issued for this course.

MACDONALD HALL.

The College authorities have made arrangements to throw Macdonald Hall open for the use of the teachers while in attendance at the Summer School. The Hall will accommodate one hundred and ten ladies, and rooms will be reserved in the order in which applications are received.

Board and room will be provided for the session, July 5th to July 31st, for fifteen dollars. In order to prevent reservations being made for teachers who are not sure of attending, a deposit of five dollars must be made with the application. This will go towards the payment of board and will be refunded on proof of illness preventing attendance.

Each resident of Macdonald Hall will be expected to provide her own napkin ring, medicine spoon or glass, toilet soap, towels, pillows, pillow covers, sheets, and laundry bag. Each should bring at least 4 ordinary towels, 2 bath towels, 4 sheets, at least 60 in. x 90 in., 1 pillow, 2 pillow covers, 1 laundry bag.

Towels, sheets, and pillow-cases are laundered free, but all students are responsible for their own personal laundry. The Hall laundry room will be open at certain times each week for the convenience of residents who may wish to wash and iron small things for themselves.



Macdonald Hall.

REGULATIONS IN RESIDENCE.

(1) Good health is a requisite for admission. Students showing signs of tubercular or nervous troubles will be asked to retire.

(2) A disposition of cheerfulness and helpfulness is essential. Students who cannot help in promoting this will be asked to seek accommodation elsewhere.

(3) Students are required to make good all breakages or damage to furniture, etc., used by them.

(4) Simple rules regarding conduct in Hall, time of meals, study hours, etc., will be drawn up on consultation with the students when they arrive.

GENERAL INFORMATION.

Classes will organize at 9 a.m., Tuesday, July 6th. Teachers arriving on Monday before 7 p.m., will have their baggage delivered free of charge. For this accommodation, checks should be brought to the Hall and given to the Lady Superintendent. The Hall will not be open until Monday.

Certificates of attendance will be issued to those who show satisfactory application and proficiency.

No fee is charged Ontario teachers.

Non-residents will pay ten dollars.

Gentlemen will find comfortable boarding homes in the city of Guelph or near the College at from \$3.50 to \$5.00 a week. Street cars connect the city with the College.

All applications should be made to

G. C. CREELMAN,
President.



ONTARIO
DEPARTMENT OF EDUCATION

Summer School for Teachers, 1909,
AT THE
ONTARIO AGRICULTURAL COLLEGE, GUELPH, ONTARIO.

APPLICATION FOR ADMISSION.

(To be made on or before June 26th.)

I hereby make application for admission to the Course in.....
at the Ontario Agricultural College Summer School, in July.

Name.....

Address.....

Inspector's Name and Address.....

Certificates, Professional and Non-Professional.....

Reference as to character.....

APPLICATION FOR RESERVATION OF ROOM AT MACDONALD HALL.

I hereby apply for a room at Macdonald Hall. I enclose the sum of five dollars as a guarantee of my intention to attend the full course of four weeks, on the understanding that this money goes towards the payment of my board in case I attend, and that it is returnable to me only in case illness or other like pressing cause prevents my attendance.

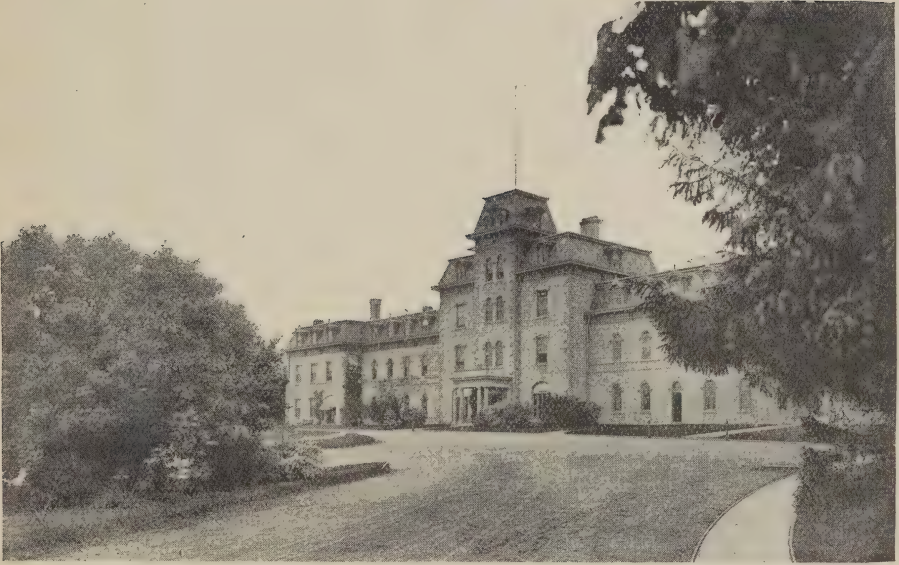
Name.....

Address.....

To be addressed to
President Creelman,
Ontario Agricultural College,
Guelph.



SUMMER SCHOOLS FOR TEACHERS, 1908.



Agricultural College, Guelph.

Arrangements have been made by the Education Department for holding a Summer School for Teachers, at the Ontario Agricultural College, Guelph.

The term will be for four weeks, commencing Thursday, July 2nd, and closing Friday, July 31st.

Instruction will be given in five Courses, and students may select any one of these. No student will be permitted to take more than one Course.

RAILWAY ARRANGEMENTS.

NOTE.—Arrangements have been made with the Railway Passenger Association allowing a round trip rate of a fare and a third. Students must get a standard certificate from their local agent at the time of purchasing a single fare ticket to Guelph; the return ticket will then be issued at a one-third rate, provided 50 teachers are in attendance. Every teacher should get the certificate and help to make up the required number.

FACULTY OF INSTRUCTION.

<i>Dairy Husbandry</i>	H. H. DEAN, B.S.A.
<i>Field Husbandry</i>	C. A. ZAVITZ, B.S.A.
<i>Animal Husbandry</i>	G. E. DAY, B.S.A.
<i>Household Science</i>	MISS M. U. WATSON.
<i>Manual Training</i>	JOHN EVANS.
<i>Botany</i>	S. B. MCCREADY, B.A.
<i>Bacteriology</i>	S. F. EDWARDS, M.Sc.
<i>Entomology</i>	C. J. S. BETHUNE, M.A., D.C.L.
<i>Poultry</i>	W. R. GRAHAM, B.S.A.
<i>Chemistry</i>	W. P. GAMBLE, B.S.A.
<i>Physics</i>	W. H. DAY, B.A.
<i>Forestry</i>	E. J. ZAVITZ, B.A., M.S.F.
<i>Horticulture</i>	J. W. CROW, B.S.A.

SPECIAL LECTURERS.

Experts will be invited from other institutions in Canada and the United States to deliver lectures at the College on special topics of interest to Teachers.

COURSES.

ELEMENTARY AGRICULTURE.

NATURE STUDY.

MANUAL TRAINING : Course I. : Card-board Work and Art.

Course II. : Wood-working.

HOUSEHOLD SCIENCE.

SYLLABUS OF COURSES.

ELEMENTARY AGRICULTURE AND HORTICULTURE.

Object of Course :

1. To prepare teachers for meeting the requirements of the Education Department in regard to the teaching of elementary agriculture and horticulture through school gardens.

2. To train teachers for rural schools in the scientific principles and practices of modern farming, so that the country or village school may sympathize with and direct the life-interests of country boys and girls.

REGULATIONS OF THE DEPARTMENT OF EDUCATION REGARDING
ELEMENTARY AGRICULTURE AND HORTICULTURE.

(From the amended Regulations of 1907. See Circular No. 13.)

1. Any Rural School Board, or any School Board in a village, that provides and maintains a School Garden with the accommodations and equipment prescribed below shall be entitled to an initial grant not exceeding *one hundred dollars*, and a subsequent grant of *twenty dollars* out of any grant made for Elementary Agriculture and Horticulture by the Legislature, to be expended in caring for such School Gardens and for keeping the school grounds in proper condition.

2.—(1) The area of the School Garden shall be sufficient for the number of plots required, and shall be at least one-quarter of an acre in addition to the requirements as to area of the regular school grounds in each case prescribed by the Education Department. The School Garden shall be adjacent or convenient to the regular school grounds.

(2) The School Board shall provide the necessary tools, implements, seeds, and other requisites, and also a garden shed, or a suitable apartment, for the storage thereof and for use as a working laboratory.

3. One legally qualified teacher in each school who holds a certificate from the Ontario Agricultural College at Guelph or any other institution approved by the Minister of Education, that he is competent to give instruction in Elementary Agriculture and Horticulture, and who shall thereafter give instruction, approved by the Inspector, in said subject at any Rural or Village Public School having a School Garden attached, in accordance with the Regulations of the Education Department from time to time, shall be entitled to receive an allowance at the rate of *thirty dollars a year* from any sum voted by the Legislature for these subjects.

4. Should the sum voted by the Legislature not be sufficient to pay in full the grant on the foregoing basis, the Education Department will make a *pro rata* distribution of the sum voted.

SPECIAL COURSE LEADING TO THE CERTIFICATE.

The regular course leading to the certificate provided for above will be given at the Ontario Agricultural College in a three months' spring term, the conditions of which will be announced hereafter in the Syllabus of the Normal Schools; but for teachers who wish to cover the work by home-study and special summer courses, the following arrangements are made for 1908-1909, to be followed by similar arrangements in subsequent years:

1. Attendance at a four weeks' course in July, 1908.
2. A course of specified reading for winter of 1908-1909.
3. Commencement of a school garden in the spring of 1909 (the land to be got ready in the fall of 1908 if possible), in which there are individual plots, flower borders, and experimental plots with at least two of the Experimental Union experiments.
4. Completion of the course by attendance for four weeks in July, 1909. Successful teachers will then have the right to the special Departmental grant in the fall of 1909.

The certificate will be known as the "Teacher's Certificate in Elementary Agriculture and Horticulture."

Nature and Equipment of the Course:

The whole College equipment of garden and orchard, farm and experimental plots, stables and workshops, museums and campus, green-houses and laboratories, forest nurseries and experimental wood lot, dairy and poultry farms will be at the service of students for observation and use.

The instruction will be given in lecture-room, laboratory, workshop, garden, and field; the theory and demonstration of the lecture and laboratory will exemplify the out-of-door practice; it will be elementary in character, the needs of pupils in the rural school being kept always in view.

Subjects and Time Table:

The following tentative time-table will suggest the allotment of time for each subject. Much of the work will be practical out-of-door instruction.

—	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8.30-10.15	Physics.	Entomology	Physics.	Bacteriology or Animal Husbandry	Seminary work.	Garden- ing.
10.15-12.00	Botany.	Chemistry.	Botany.	Field Hus- bandry.	Poultry or Dairy Hus- bandry.	
1.30-3.30	Farm Car- pentry.	Horticul- ture.	Botany or Forestry.	Horticul- ture.	Gardening.	

Examinations:

Examinations will be held at the end of the four weeks' term to test the candidate in the subjects prescribed; but the term's work as represented by garden practice, individual experiments, laboratory work, collections, and written records will be largely considered in awarding the certificate.

Exemptions from Attendance:

1. Teachers who have already completed satisfactorily a three months' course in Nature Study, and are successfully carrying on school garden work in their schools, as attested by the Public School Inspector or College representative as may be arranged hereafter (such school garden work to include individual and experimental plots, forest nursery beds, etc., in the garden, and properly co-related instruction in the School) will be granted the certificate.

2. Teachers who have already completed satisfactorily a four weeks' summer term will have due allowance made for this part of the course. Such teachers will be awarded the certificate on fulfilling the other conditions, viz. : (1) carrying on garden work successfully; (2) completing the winter reading course; (3) completing a second summer course.

OUTLINE OF COURSE OF STUDY.

The following course of study should not be considered as one to be covered completely; it is a general outline to be followed by instructor and student in accordance with the conditions; it is for teachers who have to deal with Public School scholars and not for students preparing to become experts in the Science of Agriculture. The work will exemplify the general treatment of the subject of Agriculture as covered in the authorized text-book, *James' Agriculture*.

Teachers are recommended to secure the reference books listed below for their school libraries.

SCHOOL GARDENING :

The history of the development of school gardening in Canada and abroad; its aims as a school study; laying out of a garden; individual plots; class plots; teacher's plots; experimental plots; forestry plots; borders; keeping of tools; home gardens; keeping of garden records; observation in gardens at Marden School and Macdonald Consolidated School; exhibitions.

Each student will have a garden for practice and observation.

BOOKS OF REFERENCE :

Nature Study and Life—Hodge.
The Outlook to Nature.—Bailey.
Among Country Schools—Kern.

BOTANY :

(It is assumed that the student will have a knowledge of elementary Botany.)

(1) Systematic examination, description and classification of common economic plants of the garden, field, and forest. Collection of pressed mounts.

(2) Weeds : Provincial Laws, Seed Control Act; study and identification of the seeds of common weeds. Collection.

(3) Plant diseases : Study and identification of common fruit, vegetable and grain diseases; laws regarding Barberry, Black Knot, etc.; application of preventives and remedies. Collection.

(4) Physiological : Experimental and observation work :

The Seed : testing the vitality; determining the condition necessary for germination, how the seedling becomes established.

The Root: how roots grow, their function; how they absorb food and water; proof of their using air and giving out carbon dioxide; quantity of water absorbed.

The Leaf: the function of leaves, control and measure of transpiration; respiration; starch formation; behaviour in light and darkness.

The Stem and Buds: forms, structures and functions of stem and buds; influence of temperature, moisture, light on growth; how the sap circulates.

The Flower and Fruit: the functions of the parts of flowers; causes controlling the opening and closing of flowers; pollination; formation of fruits; devices for protecting and dissemination of seeds; cross fertilization; plant breeding on experimental plots.

In the physiological experiments individual students will be assigned special subjects which they will demonstrate to their classmates after completing them.

BOOKS OF REFERENCE :

High School Botany (new edition)—Spotton.

The Farm Weeds of Canada, published by Dominion Government.

Experiments with Plants—Osterhout.

Botany—An elementary text-book—Bailey.

Agricultural Botany—Percival.

HORTICULTURE :

(1) Development, importance, needs, and outlook for the fruit industry; Governmental interest and action regarding shipping, marking, cold-storage, fumigation of nursery stock; experimental stations; co-operative tests in Experimental Union.

(2) The principles of vegetable, flower, and fruit gardening.

Practical and Observational:

Preparation and care of land; hot beds and cold frames; fertilizers and compost heaps; cultivation of annuals, perennials, and bulbs; artificial reproduction by cuttings, budding, grafting, layering; the care of fruit trees and orchards; pruning, cover-crops, etc.

BOOKS OF REFERENCE :

"Vegetable Gardening"—Green.

"The Principles of Fruit Growing"—Bailey.

FORESTRY :

Development of forestry work in other countries; value of lumbering industry; Canada's conditions and needs; laws and regulations regarding re-forestation and forest preservation; the establishment, care and protection of wood lots.

Practical and Observational:

Identification of our forest trees; planting seed-beds in school gardens; work in College nursery and in the experimental bush; collection of weeds, etc.

BOOKS OF REFERENCE:

A First Book of Forestry—Roth; Ginn & Co.

Bulletin No. 24—Forest Service, U. S. Dept. of Agriculture.

Sylvan Ontario—W. H. Muldrew; Briggs, Toronto.

FIELD HUSBANDRY:

Importance of field crops in the national economy; systems of farming; rotation of crops; fertility of the soil; cultivation of the land; classes of farm crops; uses of farm crops; varieties of farm crops; selection of plants; selection of seeds; structure of seeds; improvements of crops by means of selection and hybridization; practical tests in connection with Experimental Union; study of work being done in experiments with farm crops in Canada and in the United States.

Practical and Observational:

Examination of field crops on neighboring farms; the work on the experimental plots; farm crops in the school garden; the agricultural museum; laboratory study of the root development of farm crops; types of seeds of grains, grasses, clovers, roots and fodder crops; germination of seed.

BOOKS OF REFERENCE:

Cereals of America—Hunt.

Forage Crops—Voorhees.

The Story of the Plants—Grant Allen.

BACTERIOLOGY:

Lectures, demonstrations and laboratory work, exemplifying the work of bacteria in soil, dairying, plant and animal diseases; Government regulations regarding tuberculin tests, killing of diseased cattle, stamping out of hog cholera, meat inspection, etc. An experiment of soil inoculation in the school garden.

BOOKS OF REFERENCE:

Agricultural Bacteriology—Conn.

The Story of Germ Life—Conn.

PHYSICS (Lectures and Laboratory work):

(It is assumed that the student will have a knowledge of elementary Physics.)

Physical nature of soils, soil moisture, heat and air; principles of tillage and systems of drainage and cultivation; measurements of fields with the chain; identification of samples of soils; principles of common farm machines; meteorological records.

Collection of typical soils in vials.

BOOKS OF REFERENCE :

The Soil—King.

Engineering for Land Drainage—Elliott.

Surveying—Baker & Dickson.

Meteorology—Davis.

CHEMISTRY (Lecture and Laboratory work) :

(It is assumed that students will have a knowledge of elementary Chemistry.)

Agricultural chemistry; plant growth and composition; soils; manures and fertilizers; insecticides and fungicides.

BOOKS OF REFERENCE :

Chemistry of the Farm—Warrington (first five chapters).

Fertilizers—Voorhees.

Plant Life—Masters.

ENTOMOLOGY :

Losses through insects in agriculture and horticulture; Governmental interest; classification of insects and laboratory study of types; common, beneficial, and noxious insects; out-of-door study and collecting in field, garden, orchard and forest; insecticides; a collection of insects properly mounted and labelled is required.

BOOKS OF REFERENCE :

Insects Injurious to Vegetables—Chittenden.

Outdoor Studies—Needham.

ANIMAL HUSBANDRY :

Development, importance, status of the industry in Ontario; histories and characteristics of principal breeds of live stock; types; stabling and care.

Practical and Observational :

The College stables and herds; judging with score cards.

BOOKS OF REFERENCE :

Types and Breeds of Farm Animals—Plumb.

Principles of Breeding—Davenport.

Judging Live Stock—Craig.

DAIRY HUSBANDRY :

Development, importance, needs, outlook, Governmental interest and action; markets and competition; dairy breeds, care and stabling; individual cow-testing; care of milk and cream.

Practical and Observational :

Process of Cheddar cheese making, curing, boxing, labelling, shipping. Process of butter making, printing, shipping; milk-testing with lactometer and Babcock test; milk separation with hand separator.

BOOKS OF REFERENCE :

The Elements of Dairying—J. W. Decker.
Cheesemaking—J. W. Decker.
Testing Milk and Its Products—Farrington and Woll.
Canadian Dairying—Dean.
Modern Methods of Milk Testing—Van Slyke.

POULTRY :

Development and importance of poultry industry in Canada; markets and competition; Governmental interest and action; common breeds; feeding, housing; incubation; individual testing by trap nest; preservation of eggs.

Practical and Observational :

Natural and artificial hatching of chicks; care of young in brooders, feeding, etc.

BOOKS OF REFERENCE :

First Lessons in Poultry Keeping—Poultry Pub. Co., Boston.

FARM CARPENTRY.

Making insect box, garden stakes, plant-press, dibbles, germination boxes, ladders for fruit picking; trap nests; line-reels; cutting glass; puttying for hot beds; painting; mixing of paints; care of brushes; sharpening hoes; inserting handles in spades; care of tools; sharpening knife and saws; making knots and splices.

BOOKS OF REFERENCE :

Woodworking for Beginners—Chas. G. Wheeler.
Benchwork—W. F. M. Goss.
Every Man's Own Mechanic—Spon.

NATURE STUDY.

The Nature Study Course is distinct from that in Elementary Agriculture. The work in the two courses will overlap in many subjects, but teachers in town and city graded schools will find their needs best met in the Nature Study course. In it more attention will be given to co-related art and constructive work, bird and insect study, etc., and less to the strictly agricultural subjects, than in the course in Elementary Agriculture.

In general, the mornings will be devoted to work indoors, and the afternoons to work in the fields and woods. When weather will not permit of field work, laboratory exercises will be substituted. Saturdays will be for all-day excursions, or reviewing and arranging the week's work. Such students as wish to spend their time in independent work along special lines will be encouraged to do so and given every possible assistance. Members of the class in Nature Study may take the work in horticulture, school gardening, etc., with the class in Elementary Agriculture. The following is an outline of the work to be taken up :

Excursions: Daily excursions, aiming at practical acquaintance with the common birds, trees and shrubs, wild flowers and plants, ferns, weeds, insects, rocks, soils. Visits will also be made to local industries to study manufacturing processes.

Collections: Students will be instructed in making nature collections to illustrate the field work and lectures. This will include wild flowers, noxious weeds, grasses, common ferns, forest trees, as shown by leaves and fruit, seeds of noxious weeds, groups of insects to illustrate the principal orders, etc.

Art and Constructive Work: The course in Art will include colour work and will consist of practical instruction in (1) model drawing, (2) drawing of common objects, (3) drawing of flowers and plants suitable for the Public School course.

In Art and Constructive Work the work will be in the line of that presented in the Public School course.

Equipment: Teachers should bring with them any good manuals that they have on the subjects of the course, shoes and clothing suitable for field and wood, a field or opera glass, a good pocket lens and a penknife, plant can, etc.

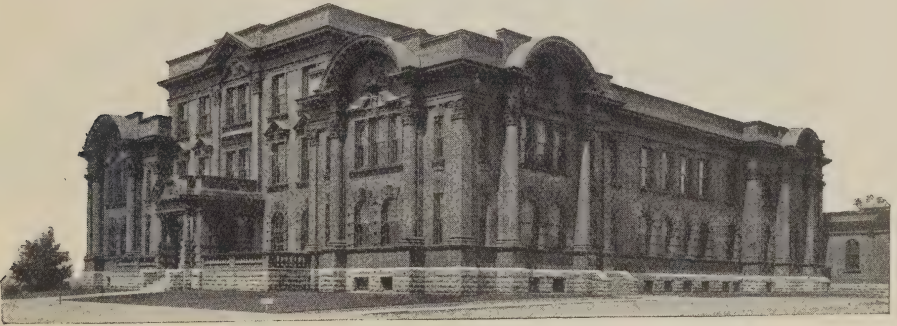
MANUAL TRAINING.

Course I.

Cardboard and Art: The lines of work in this course will include construction in paper, cardboard, etc. ; brushwork for the grades and application; colour, light and dark; and drawing of plants, flowers, etc. Attention will be given to constructive design, and the courses will have in view the needs of Public School pupils who are to become artisans.

When the class is organized in July, the time-table will be arranged to suit the special needs of students.

Students should bring with them any good manuals they may have on the subjects of the course. All should procure a sheet of carbon paper, tracing paper, and a supply of drawing paper (unglazed). In addition, those taking up cardboard work and Art should provide themselves with a set of Prang's water colour No. 3A, a box of crayons, a few sticks of charcoal, Japanese brush No. 15, and a water cup. Those taking wood-working should bring a set of good drawing instruments and from three to five H pencils. These may, however, be bought from the supply houses in Guelph.



Macdonald Institute.

Course II.

This course will cover, as far as time permits, the work as described in the Departmental Regulations for Public Schools in :

Woodworking: This course will present a comprehensive view of manual training in benchwork and mechanical drawing suitable for Public Schools. Attention will be given to methods of finishing, simple means of decoration, modifying and designing models, and working out projects to meet given conditions.

HOUSEHOLD SCIENCE.

The classes will be held in Macdonald Institute.

The course will include the following :

- 14 practical lessons in Plain Cookery.
- 14 " " " Plain Sewing.
- 7 " " " Laundry.

12 lectures on the Home—its functions, sanitation and care.

15 lectures on Foods by the various instructors of the Animal Husbandry, Dairy, Horticulture, Bacteriology and Home Economics departments.

The classes in Household Science will not be formed unless at least six teachers attend.

Students are required to bring with them two plain cotton dresses, at least two large white bib aprons, and two small hand towels for wear in the laundry and cookery lessons. The work in these classes will be practical.

The lessons and lectures will be distributed as follows :

TIME-TABLE.

	MONDAY	TUESDAY	WEDN'SDAY	THURSDAY	FRIDAY	SATURDAY
8.45 - 9.35	Lecture	Lecture	Lecture	Lecture	Lecture	
9.35 - 10.25	Laundry	Cookery	Cookery	Cookery	Cookery	
10.25 - 11.15	Laundry	Cookery	Cookery	Cookery	Cookery	
11.15 - 12.05	Laundry	Cookery	Cookery	Cookery	Cookery	
12.05 - 1.30	DINNER.					
1.30 - 2.20	Sewing	Sewing	Laundry	Sewing	Sewing	
2.20 - 3.10	Sewing	Sewing	Laundry	Sewing	Sewing	
3.10 - 4.00	Lecture	Lecture	Laundry	Lecture	Lecture	

MACDONALD HALL.

The College authorities have made arrangements to throw this beautiful residence building open for the use of the teachers during the month of July. Macdonald Hall will accommodate one hundred and ten ladies and rooms will be reserved in the order in which applications are received.

Board and room will be provided for the session, July 2nd to July 31st, for fifteen dollars. In order to prevent reservations being made for teachers who are not sure of attending, a deposit of five dollars must be made with the application. This will go towards the payment of board. It may be refunded on a proof of illness preventing attendance.

Each resident of Macdonald Hall will be expected to provide her own napkin ring, medicine spoon or glass, toilet soap, towels, pillows, pillow covers, sheets, and laundry bag. Each should bring at least :

- | | |
|-------------------------------------|------------------|
| 4 ordinary towels, | 1 pillow, |
| 2 bath towels, | 2 pillow covers, |
| 4 sheets, at least 60 in. × 90 in., | 1 laundry bag. |

Laundry: Towels, sheets, and pillow-cases are laundered free, but all students are responsible for their own personal laundry. The Hall laundry room will be open at certain times each week for the convenience of residents who may wish to wash and iron small things for themselves.



Macdonald Hall.

Regulations in Residence: (1) Good health is a requisite for admission. Students showing signs of tubercular or nervous troubles will be asked to retire.

(2) A disposition of cheerfulness and helpfulness is essential. Students who cannot help in promoting this will be asked to seek accommodation elsewhere.

(3) Students are required to make good all breakages or damage of furniture, etc., used by them.

(4) Simple rules regarding conduct in Hall, time of meals, study hours, etc., will be drawn up on consultation with the students when they arrive.

GENERAL INFORMATION.

Classes will organize at 2 p.m., Thursday, July 2nd. Teachers arriving on time will have their baggage delivered free of charge; for this accommodation checks should be brought to the Hall and given to the Lady Superintendent.

Certificates of attendance will be issued to those who show satisfactory application and proficiency.

No fees of any kind will be charged for any of the courses.

Gentlemen will find comfortable boarding homes in the city of Guelph or near the College at from \$3.50 to \$5.00 a week. Street cars connect the city with the College.

All applications should be made to

G. C. CREELMAN,
President.



Summer School for Teachers, 1908
AT THE
ONTARIO AGRICULTURAL COLLEGE, GUELPH, ONTARIO.

APPLICATION FOR ADMISSION.

*I hereby make application for admission to the Course in
at the Ontario Agricultural College Summer School, in July.*

Name

Address

Inspector's Name and Address

Certificates, Professional and Non-Professional

Reference as to character

APPLICATION FOR RESERVATION OF ROOM AT MACDONALD HALL.

*I hereby apply for a room at Macdonald Hall. I enclose the sum of five
dollars as a guarantee of my settled intention to attend the full course of four
weeks, understanding that this money goes towards the payment of my board in
case I attend, and that it is returnable only in case illness or other like pressing
cause prevents my attendance.*

Name

Address

To be addressed to
President Creelman,
Ontario Agricultural College,
Guelph.



ONTARIO
DEPARTMENT OF EDUCATION

DISTRIBUTION OF MODEL SCHOOL LIBRARIES.

The Minister of Education directs that the Libraries which were provided by the Department of Education for the use of County Model Schools shall be transferred to the Teachers' Associations of the counties or inspectoral divisions in which such Model Schools were situated.

The distribution of the Libraries shall be made as follows:—

(1) Where there are one or more Libraries in a county with one Inspector, the Library or Libraries shall be transferred to the Teachers' Association of said county.

(2) Where there are two Libraries in a county and two inspectoral divisions, each Library shall be transferred to the Teachers' Association for the inspectoral division in which the Library is now located.

(3) Where there is one Library in a county in which there are two inspectoral divisions, the Library shall be divided equally between the two Teachers' Associations in the county, the division to be made by the Inspectors of the county.

(4) Where there are two Libraries in a county in which there are three inspectoral divisions, the Libraries shall be divided equally among the three Teachers' Associations in the county, the division to be made by the Inspectors of the county.

Inspectors concerned are requested to give effect to the foregoing at their earliest convenience.

A. H. U. COLQUHOUN,
Deputy Minister of Education.

Toronto, April 26th, 1909.



*Admission to County Model Schools for
the Session of 1907.*

For the present session of the County Model Schools and not thereafter, County Boards may admit pupils who are qualified non-professionally as prescribed in Regulation 59, and who will be eighteen years of age on or before August the 17th, 1908. Certificates of qualification as Public School teachers shall, however, not be issued to such candidates until they are of the legal age, nor shall a County Board have authority to admit any other candidates than those qualified as above.

R. A. PYNE,
Minister of Education.

EDUCATION DEPARTMENT,
TORONTO, September 9th, 1907.



EMPIRE DAY

As Friday, the 22nd of May, will be the first school day before the 24th May, the Regulations of the Department of Education require that it shall be observed as "Empire Day," and shall be duly celebrated in each school. The forenoon is to be devoted to a study of the greatness of the British Empire, and the afternoon to public addresses, recitations, music, etc., of a patriotic character.

The morning should be occupied by the teacher in illustrating by facts and figures the extent of the Empire, its history and resources. Mention might be made of the most noted Statesmen, Military and Naval Heroes, and those prominent in Literature, Science, Art, etc.

Emphasis could be laid upon the fact that all British subjects are specially blessed and privileged in living under a constitutional form of Government, such as ours. The systems of Dominion, Provincial, Municipal and Educational Governments might also be concisely referred to. A geographical illustration, from the map of the world, of the various possessions of the British Empire might also be a feature of the morning's exercises.

In the afternoon a miscellaneous programme of patriotic recitations, songs, readings by the pupils, and addresses by trustees, clergymen, and others could be profitably carried out.

As every rural school in the Province, it is expected, will have received a "Union Jack" from this Department by the 22nd of May, and as doubtless all Urban Schools have one, that flag should be flown on "Empire Day" from every school building, or displayed prominently in the school. The "Canadian Ensign" could also be used, if one is obtainable.

R. A. PYNE,

Department of Education, May, 1908.

Minister of Education

The British Empire

Facts for the Scholars

It may be interesting to know that you can say: I am a subject of King Edward VIIth, and a Citizen of the British Empire.

The full title of King Edward VIIth is:—His Most Excellent Majesty, Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of all the British Dominions beyond the seas, King, Defender of the Faith, Emperor of India.

That portion of the Earth's land surface which is subject to the authority of King Edward the VIIth is the British Empire. Its extent is over 11 millions square miles (11,433,283 sq. m.) ; of these only 121,390 sq. miles are in the United Kingdom.

The British Empire covers about one-fifth or 21 per cent. of the earth's surface.

The extent of the British Empire is greater than that of any other State. The Nations outside the British Empire possessing the largest extent of territory are : Russia, 8,647,657 square miles ; United States, 3,567,563 square miles ; Brazil, 3,218,991 : China, 4,277,170.

The number of subjects of King Edward VIIth is about 400 millions (400,000,000), or about one-fifth, or about 22 per cent. of the inhabitants of the earth. Of these only about 43 millions (43,000,000) live in the United Kingdom.

The population of the British Empire is about equal to that of China, and more numerous than that of any other country.

The most populous countries outside the Empire are :—

China with about.....	433,553,030 people
Russia “ “	146,796,600 “
United States.....	83,879,086 “

The numbers of the inhabitants of the principal cities in different parts of the Empire are:—

London (Registration London, 4,721,217) ;

Greater London or the Metrop. and

City Police District.....	7,113,561
Calcutta	1,026,987
Glasgow.....	835,625
Manchester and Salford.....	871,203
Bombay.....	776,006
Liverpool.....	739,180
Birmingham.....	548,022
Sydney.....	481,830
Madras... ..	509,346
Melbourne.	515,350
Dublin	290,638

Montreal	375,000
Johannesburg	158,580
Cape Town	77,668
Wellington, New Zealand	58,563
Ontario—Toronto	272,600
Hamilton	64,067
Ottawa	76,260
London	47,769

The extent of the British Empire in square miles, in each continent is :—

In America over 4 millions of square miles....	4,025,687
“ Australia “ 3 “ “ “ “	3,184,531
“ Africa “ 2½ “ “ “ “	2,195,253
“ Asia nearly 2 “ “ “ “	1,906,303
“ Europe over 120,000 “ “	121,509

The numbers of the subjects of King Edward in each continent are :—

In Asia about 300 millions.....	301,293,316
“ Africa “ 34 “	34,057,621
“ Europe “ 44 “	43,882,825
“ America about 8 “	7,989,698
“ Australasia about 5½ millions.....	5,623,375

The inhabitants of the earth vary in race, and in the colour of their skins. The principal colours are white, copper, yellow and black. Among all of these races and colours are the subjects of King Edward to be found. Of these about 54 millions (54,000,000) are white, and 344 millions (344,000,000) coloured.

The inhabitants of the earth belong to many religions. The principal are the Christian, Mohammedan, Buddhist, and Hindu Religions. There are besides many Pagans. Subjects of King Edward will be found among all of these Religionists.

The numbers of the subjects of King Edward belonging to the principal religions are :—

About 208 million	Hindus.....	208,000,000
“ 94 “	Mohammedans.....	94,000,000
“ 58 “	Christians.....	58,000,000
“ 12 “	Buddhists.....	12,000,000
“ 23 “	of other religions and Pagans	23,000,000

The value of the total trade of the British Empire in the year 1905 was :—Nineteen Hundred and Six Million Pounds (£1,906,726,397).

The amount of tonnage of steam and sailing vessels owned by the Empire is :—

9,874,789 tons of steamships.
and 2,574,955 “ “ sailing ships.

Total 12,449,744 tons.

About half the shipping of the world.

The Annual Revenue of the British Empire is about Two Hundred and Fifty Million Pounds (£317,353,564 in 1904-5).

Different portions of the British Empire are governed in different ways. Some portions like the United Kingdom, the Canadian Dominion, the Australian

Commonwealth, New Zealand, Cape Colony, Natal, and Newfoundland, are self-governing ; others are partly self-governed and partly governed by officials appointed by the British Government ; and others again like India, are governed by officials appointed by the Home Government ; but all acknowledge allegiance to the King-Emperor.

The duties of British subjects towards their Sovereign are : To honour and obey him.

It is the duty of British subjects to honour and obey the King, because King Edward the VIIth represents the Majesty and Honour of the Empire, and because, as a constitutional Sovereign, he has sworn to uphold the laws, and to govern his subjects with justice and equity.

The duties of a citizen of the British Empire are : To be the loyal friend of all fellow subjects of the King-Emperor ; so to live as never to bring reproach by word or deed on the Empire of which he is a citizen. To prepare himself by every means in his power to advance the welfare of his fellow citizens, whether in peace or war, whatever may be their class, creed or colour.

A citizen of the British Empire owes duties to the State because citizens of the British Empire enjoy privileges, and an amount of personal liberty and freedom greater than those enjoyed by the citizens of any other State in the world, and therefore owe loyalty and gratitude to the Empire which protects them in the enjoyment of these privileges, liberty and freedom.

The "EMPIRE DAY" movement is an effort throughout the King-Emperor's Dominions to remind all British subjects of the virtues which make a good citizen, such as loyalty, patriotism, courage, endurance, respect for, and obedience to, lawful authority, and to encourage self-sacrifice for the public good; to teach all, and especially the young, the sacredness of the trust committed to them, and to inspire them with determination to do their duty, and should be promoted by every British subject.

May 24th is annually observed in the other Dominions of the King-Emperor as "Empire Day."

May 24th was the birthday of the late good Queen Victoria, during whose reign of 63 years the Empire grew to its present greatness, as year by year her people increased in health, strength, numbers, wealth and happiness.

The "Motto" of the Empire Day movement is: "One King, One Flag, One Fleet, One Empire."

The name of the British National Flag is: The "Union Jack."

It is called the "Union Jack" because it is a union of the English, Scotch and Irish national ensigns or "Jacks": The Crosses of St. George, St. Andrew and St. Patrick.

The "Union Jack" should be flown on "Empire Day" from all public and private buildings.

GOD SAVE THE KING.

The Flag of Britain

Dedicated to the Right Hon. The Earl of Meath, in recognition of his efforts to cherish patriotism in the hearts of the children of Great Britain, Ireland and the Colonies.—*E. A. Walker.*

Flag of Britain, proudly waving, over many distant seas ;
 Flag of Britain, boldly braving blinding fog and adverse breeze.
 *We salute thee, and we pray, bless, O God, our land to-day.

Flag of Britain ! where-so-ever thy bright colour are out-spread ;
 Slavery must cease for ever, light and freedom reign instead.
 *We salute thee, and we pray, bless, O God, our land to-day,

Flag of Britain ! 'mid the nations, may it ever speak of peace,
 And proclaim, to farthest nations, all unworthy strife must cease.
 *We salute it, and we pray, bless, O God, our land to-day.

But if duty sternly need it, freely let it be unfurl'd,
 Winds of Heaven then may speed it to each quarter of the world.
 *We salute it, and we pray, bless, O God, our land to-day.

Love of it, across the waters passing with electric thrill,
 Binds our distant sons and daughters, heart to heart with Britain still.
 *We salute it, and we pray, bless, O God, our land to-day.

Regions East and West united, all our Empire knit in one ;
 By right loyal hearts defended, let it wave beneath the sun.
 *We salute it, and we pray, bless, O God, our land to day.

*At the words "we salute thee" the hand should be raised in the attitude of salute. At the words "and we pray" the head should be bowed, still retaining the hand at the salute. It is desirable that the Union Jack should be raised during the singing of the song.

IMPORTANT EMPIRE NOTICE.

His Majesty the King, H.R.H. the Prince of Wales and His Excellency the Governor-General have evinced deep personal interest in all that concerns the welfare of this Dominion (the most extensive portion of His Majesty's Empire), and their latest desire has been to establish a National Park on the Plains of Abraham.

Monuments have been erected, and justly so, to the memory of naval and military heroes, and as a refreshing contrast it is proposed to build in this park a permanent memorial in recognition of the blessings we now enjoy of peace and prosperity. This memorial will commemorate the three-hundredth anniversary of the establishment of Quebec by Champlain, by the Consecration of the battle-fields of the Plains of Abraham and Ste. Foy.

A perpetual emblem indicating an expression of gratitude to Almighty God, is therefore proposed to be erected in the National Park. It is to be a statue of Peace, a monument of beauty, which shall be, as it were, a beacon of kindly welcome to every person coming to this land by way of Quebec and the St. Lawrence River. The Governor-General states that "The statue of Peace must not be banal nor vulgar with flowing and windy draperies. It must be noble, calm, majestic, reposeful, the arms outstretched forward with the palms slightly downward as though blessing incoming ships, and the eyes lovingly bent to the people below. On the base of the statue can be represented different phases of Canadian life."

The site of the National Park at Quebec will comprise parts of the above mentioned famous battlefields where French and British parentage gave birth to the Canadian nation.

This year is the 300th birthday of Canada, and in celebration of that event the Federal and the Provincial Legislatures have voted large sums of money to perfect the park and towards the beautifying of the grounds and the removal of unsightly buildings.

It is desired to give everybody an opportunity to share in the erection of the statue. It would not, therefore, be just to pass the rising generation by, without giving each member the privilege of being able to say, "I helped to raise that monument."

These few facts are therefore brought to the notice of teachers and officers in order that the opportunity may be given to every scholar and others who may desire, to contribute a few cents to such a desirable object, and thus make this brilliant conception a luminous and imposing reality. There is no obligation to contribute, but the teacher may bring the matter before the scholars, and also to the notice of the persons present at the Empire Day celebration. The contributions received may be sent to the Public School Inspectors by postal note or Post Office order, and the Inspector will forward the total amount secured within his county or city to this Department with a list of schools contributing. Collegiate Institute and High School Principals and teachers of Separate Schools and others may mail direct to this Department any sums that may be received or donated by them. Remittances may be made any time before the end of June.

Sir :

As you are probably aware, the Minister of Education intends to aid as far as practicable, the Teachers' Institutes of the Province, by sending to their meetings as lecturers and instructors the Principals of the Normal School staffs, as well as other competent educationalists. To enable him to organize a scheme before next September, he has directed me to request you to submit to the Department such information as you may be able to afford on the following topics :

- (1) The time when your Teachers' Institute is usually held.
- (2) The months most inconvenient for the members to attend.
- (3) The points at which your Teachers' Institutes are usually held, naming the most convenient one.
- (4) The feasibility of union with other Teachers' Institutes.
- (5) Suggestions of topics for discussion, arranging them in the order of their importance and having regard to the present necessities of the schools in the inspectorate.
- (6) Suggestions as to the character of the most helpful form of evening meeting.
- (7) Suggestions as to the proportion of the work to be taken by members of the Institute.

To the foregoing you might add any other suggestions that may occur to you.

Kindly let me have your reply on or before the 31st of May.

I have the honour to be,

Sir,

Your obedient servant,

A. H. U. COLQUHOUN,

Deputy Minister of Education.

The Secretary,

Teachers' Institute,

The Canadian Branch of
The
International Congress
for
School Hygiene.

Patron :

The Right Honourable Earl Grey, G.C.M.G., G.C.V.O., Governor-General of Canada.

Vice-Patrons :

The Lieutenant-Governors of the various Provinces.
The Right Honourable Sir Wilfrid Laurier, G.C.M.G.
The Lord Bishops of the Anglican Church in Canada.
The Lord Bishops of the Roman Catholic Church in Canada.
The Moderator of the General Assembly of the Presbyterian Church in Canada.
The General Superintendent of the Methodist Church in Canada.
The Presidents of the Baptist Conventions in Canada.
The Chairman of the Congregational Union in Canada.
Hon. R. A. Pyne, M.D., LL.D.

President :

Sir James Grant, M.D., K.C.M.G., Ottawa.

Vice-Presidents :

The Ministers in charge of Education in the various Provinces.
The Presidents of the Universities and Colleges in Canada.

Secretary :

W. F. Chapman, B.A., Inspector of Public Schools, Toronto.

General Committee :

- The Superintendents of Education in the various Provinces.
The Deans of Faculties of the Universities and Colleges in Canada.
The Professors of Hygiene in the Medical Colleges in Canada.
The Principals of the Normal Schools in Canada.
The President of the Canadian Medical Association.
The Presidents of the Provincial Medical Associations.
The President of the Dominion Educational Association.
The Presidents of the Provincial Educational Associations.
The Officers of the School Hygiene Section of the Ontario Educational Association.
The Health Officers of the chief cities in Canada, and the following ladies and gentlemen :—
Miss C. C. Benson, Ph. D., Assoc. Prof. Household Science, Toronto University.
Miss H. Coleman, Toronto.
Miss E. Hurlbatt, Warden, Royal Victoria College, Montreal.
Dr. Helen MacMurchy, Toronto.
Miss E. Nainby, Havergal College, Toronto.
Henry W. Auden, M.A., (Cantab.) Prin. Upper Canada College, Toronto.
A. H. U. Colquhoun, B.A., LL.D., Deputy Minister of Education for Ontario.
L. E. Embree, M.A., LL.D., Senior Principal of High Schools, Toronto.
Dr. J. Fleming Goodchild, Toronto.
Dr. Chas. A. Hodgetts, Secretary Ontario Board of Health.
James L. Hughes, Chief Inspector of Public Schools, Toronto.
A. P. Knight, M.A., M.D., Prof. of Physiology, Queen's University, Kingston.
Dr. A. McPhedran, Prof. of Medicine, Toronto University.
Rev. D. Bruce Macdonald, M.A., LL.D., Principal St. Andrew's College, Toronto.
F. W. Merchant, M.A., D.Paed., Inspector of Normal Schools, Toronto.
Wm. Oldright, M.A., M.D., Toronto.
Dr. R. A. Reeve, ex-Dean of the Medical Faculty, Toronto University.

THE Third International Congress for School Hygiene will be held in Paris in 1910, a week after Easter.

This International Congress is the outcome of the greatly increased attention that has been paid of late years in all civilized countries to questions of Hygiene and to the realization of the fact that the foundation of national welfare and prosperity as well as the foundation of good citizenship must be laid in healthy infancy and school life.

The first International Congress was held in Nuremburg, in Easter, 1904, and was attended by fifteen hundred delegates representing almost every civilized state.

The second Congress, under the patronage of His Majesty King Edward, took place in London in 1907, from August 5th to 10th. The President, Sir Lauder Brunton, and the officers of the Congress were assisted by all the educational, scientific, academic and municipal authorities of Great Britain, and the meeting was referred to by the English press as "The most important gathering ever held in England." Over two thousand delegates, including the greatest living authorities on Education and Hygiene and representing some forty different countries of the world, attended the sessions, and the influence of the Congress has made itself felt generally in literature, laws and regulations connected with health and Education. The British Government, in 1907, stated that they were deferring legislation on Medical Inspection of Schools until the deliberations of the Congress were made known; and shortly after the Congress rose the bill making Medical Inspection of schools compulsory became law.

There were eleven different sections in the Congress.

I. The Physiology and Psychology of Educational Methods and Work.

II. Medical and Hygienic Inspection in Schools.

III. The Hygiene of the Teaching Profession.

IV. Instruction in Hygiene for Teachers and Scholars.

V. Physical Education and Training in Personal Hygiene.

VI. Out-of-School Hygiene.

VII. Contagious Diseases. Ill health and other conditions affecting school attendance.

VIII. Special Schools for Feeble-Minded and Exceptional Children.

IX. Special Schools for Blind, Deaf and Dumb Children.

X. Hygiene of Residential Schools.

XI. The School Building and its Equipment.

It will thus be seen that the subjects dealt with by the Congress appeal to every member of the teaching profession.

The recent meeting of the Ontario Educational Association offered a fitting opportunity to form a Canadian Branch of the Congress, this Branch like the others in the different countries to assist in the work of the Paris Congress by suggesting subjects of importance for general discussion, by proposing the names of those who would be likely to read papers or in any way contribute to the proceedings of the Congress, and to promote its success by obtaining the appointment of delegates and inviting all who are interested to attend the meeting which will be held in Paris, Easter week, 1910.

A public meeting, under the auspices of the Local Executive Committee of the Ontario Educational Association, was held on April 15th, 1909, in Toronto University. Dr. Falconer, the President of the University, presided, and after an address by Sir James Grant, M.D., K.C.M.G., of Ottawa, on "The Life of Our Young Nation,"—an address worthy of the widest circulation—a Canadian Branch of the International Congress for School Hygiene was formed, on motion of Principal Auden of Upper Canada College, seconded by Dr. Helen MacMurchy. On motion of Prof. Wm. Oldright, seconded by Dr. R. A. Reeve, Sir James Grant was elected President of the Canadian Branch. On taking the chair Sir James announced that His Excellency, Earl Grey, Governor-General of Canada, had consented to become patron of the Canadian Branch of the Congress.

It is believed that the formation of this Canadian Branch of the Congress will open a way to bring about more interest in School Hygiene in Canada and will thus lead to better work and progress in the matter of caring for the health of Canadian children.

This brief statement of the history, aims and work of the International Congress, and of the organization of the Canadian Branch, is now sent to all interested, with the hope that the information may be widely extended, and general interest created in the Congress and in the Canadian Branch, thus ensuring a hearty public support of all laws and regulations that make for a higher citizenship through the better care of the health of the individual and especially of the child. To this end everyone receiving copies of this Report will please distribute them among those whose interest and co-operation will best aid the good work.

It is earnestly desired that many may evince their interest in this world-movement by sending to the Secretary, not only suggestions regarding the topics named in this leaflet, but also data gathered from experience and such special or general information relating to School Hygiene and Medical Inspection of School Children as may prove of service in advancing the aims and increasing the efficiency of the Congress and of the Canadian Branch.



PATRIOTIC PROGRAMMES.

For October, November, December, 1908. January, February, March,
April and May, 1909.

Issued by the Imperial Order Daughters of the Empire, with the approval
of the Minister of Education for use in Schools on
the last Fridays of each month.

THE NATURAL RESOURCES OF CANADA.

OCTOBER.

WHEAT.

"Shall we not all be one race, shaping and welding the nation?
Is not our country too broad for the schisms which shake petty lands?
Yea, we shall join in our might, and keep sacred our firm Federation,
Shoulder to shoulder arrayed, hearts open to hearts, hands to hands."

1. Why is Canada known as the Granary of the Empire?
2. Name some of the varieties of wheat and other grains which are the most important of Canada's Agricultural productions?
3. Give some characteristics of the climate and soil in the great grain belt?

READINGS.

"Agriculture" - James
"Canada, its History, Productions and Natural Resources" - Johnson

NOVEMBER.

DAIRY FARMING.

"From upland slopes I see the cows file by,
Lowing, great-chested, down the homeward trail,
By dusking fields and meadows' shining pale."

1. Why are all the Provinces admirably suited to Dairy Farming?
2. Give some facts relating to the production of butter and cheese in Ontario and of the exports of these to the United Kingdom?

3. Explain briefly the superior advantages of combining cattle raising with grain production?

READINGS.

- "Successful Farming" - - - - - Rennie
 "Annual Report of the Poultry Institute of Ontario, 1908."

DECEMBER.

FRUIT.

"And apples crowned the stooping bough;
 Drooping so ripe and melting mellow,
 Rind-streaked red and flecked with yellow;
 Each one fairer than its fellow."

1. State briefly how Canada compares with other countries in fruit production.
2. What are the principal varieties of fruit raised in each Province and name the principal fruits exported to the United Kingdom?
3. Give some idea of the benefit derived in fruit cultivation from the Dominion and Provincial Experimental Farms?

READINGS.

- "Reports of Horticulture" - - - - - Macoun
 "Reports of Experimental Farm" - - - - - Robertson

JANUARY.

GOLD.

"Before me shone a glorious world
 Fresh as a banner bright, unfur'd
 To music suddenly:
 I looked upon these hills and plains,
 And seemed as if let loose from chains."

1. How does Canada compare with other nations in her output of gold?
2. Give some description of the Yukon Gold Fields and tell their total production to 1906.
3. Give some account of the improved modern dredging methods which may make gold mining profitable in all the Provinces.

READINGS.

- "Report Atlin Mining District" - - - - - Gwilline
 "Lake Superior Mines and Mining" - - - - - Ingall

FEBRUARY.

SILVER.

"Empires have come and gone,
And glorious cities fallen in their prime,
Divine, far-echoing names once writ in stone
Have vanished in the dust and void of time;
But ye, firm-set, secure,
Like treasure in the hardness of God's palm,
Are yet the same."

1. Give some idea of the rapid development of Silver Mining in Ontario?
2. In what way does it exceed the world's history of Silver Mining?
3. State the benefit to Canada of the Silver Production in connection with the establishment of the Royal Mint at Ottawa?

READINGS.

"Canada's Resources and Possibilities" - - - - - Jeane
"Mineral Wealth" - - - - - Dawson

MARCH.

IRON.

"O strong hearts guarding the birthright of our glory,
Worth your best blood this heritage that ye guard!
These mighty streams resplendent with our story,
These iron coasts by rage of sea unjarred."

1. Show how iron is a leading source of wealth to the Empire?
2. What are the probabilities for the future development of Canada's enormous iron deposits, keeping in mind the necessity of coal for this industry?
3. What great Canadian industry will benefit most by increased iron production?

READINGS.

"Iron Deposits, etc." - - - - - Ingall
"Sudbury Nickel and Copper Deposits" - - - - - Barlow

APRIL.

FORESTS.

"Bite deep and wide, O axe, the tree.
What doth thy bold voice promise me?
I promise thee all joyous things
That furnish forth the lives of kings:
For every silver ringing blow
Cities and palaces shall grow!"

1. Name some of the economic timbers of greatest importance growing in Canada; state in what parts they are to be found and their relative value in the market.

2. How does the forest wealth of Canada compare with that of the rest of the world, and especially with the United States ; and why may it not be found "inexhaustible" ?
3. What advantages may be expected to follow the introduction of systematic education in forestry.

READINGS.

"The Economics of Forestry"	- - - - -	Fernow
"Canada's Century"	- - - - -	Barrett

MAY.

CANADIAN CANALS.

"And many a day
 To night gave way
 And many a morn succeeded :
 While still his flight,
 Through day and night
 The restless mariner speeded."

1. Name the first ship to come across the Atlantic and ascend the St. Lawrence as far as Montreal, giving length and draft and date. State what Canada has done since to enlarge and deepen this ship channel and give length and draft of largest ship now entering Montreal.
2. Name the canals connecting Montreal with Lake Superior. Describe the three epochs in their development and give length and draft of the largest ship now able to go from Liverpool, Eng., to Fort William, Ont.
3. Name the canals connecting St. Anne, Que., with Ottawa and Kingston, Ont. What Government built them and what Government enlarged them? Name the first steamboat to ply between Montreal and Quebec and the first one on Lake Ontario. Who manufactured their steam engines?

READINGS.

"History of Canada"	- - - - -	Kingsford
"Canals of Canada"	- - - - -	Keefer

NOTE.—Continuation : The Natural Resources of the other parts of the British Empire.



TORONTO, December 16th, 1908.

DEAR SIR :—

I am directed by the Minister of Education to state that those whose names appear on the accompanying list are holders of limited Third Class certificates, and, according to the Departmental records, have not yet engaged with school boards.

The holder of such a certificate cannot make an agreement with a school board until the certificate has been endorsed for that school by the Minister, upon the recommendation of an Inspector made on Form 93A. This form must certify that no teacher with a higher qualification can be secured.

The Minister desires it to be clearly understood that no temporary certificate shall be recommended by an Inspector until he is satisfied that a teacher with a legal qualification (including, of course, a limited Third Class) cannot be secured.

I have the honour to remain,

Your obedient servant,

A. H. U. COLQUHOUN,

Deputy Minister of Education.

To Inspector.....

SCHOOLS FOR WHICH Temporary Certificates

WERE ISSUED

To Expire December 31, 1908

The following list has been prepared for the information of teachers who desire positions in the Public Schools for 1909. The list, of course, does not include all the vacancies which will occur in the different Inspectorates by the end of the year. Further information may be obtained on application to the Inspectors concerned. The applicant should make clear to the Inspectors the grade of certificate he holds.

District of Algoma

Insp.—L. A. Green, B.A., Sault Ste. Marie

Schools—No. 2 Township of Tarbutt
 “ 4 “ Lefroy
 “ 2 “ Baldwin

Bruce, East

Inspector—J. McCool, M.A., Walkerton

Schools—No. 6 Township of Lindsay
 “ 4 “ “
 “ 11 “ Amabel
 “ 14 “ “

Carleton

Inspector—T. Jamieson, B.A., Ottawa

Schools—No. 23 Township of Osgoode
 “ 6 “ Marlborough
 “ 3 “ Carlow
 “ 5 “ Goulbourn
 “ 9 “ N. Gower
 “ 7 “ Fitzroy
 “ 17 “ Goulbourn
 “ 7 “ Osgoode
 “ 9 “ Fitzroy
 “ 21 “ Osgoode
 “ 12 “ “
 “ 3 “ Torbolton
 “ 7 “ Huntley
 “ 14 “ Marlborough
 “ 4 “ Huntley

Dufferin

Inspector—N. Gordon, Orangeville

Schools—No. 12 Township of Mono
 “ 9 “ E. Luther
 “ 11 “ Mono
 “ 19 “ “

Durham

Insp.—W. E. Tilley, Ph.D., Bowmanville

Schools—No. 19 Township of Clarke
 “ 17 “ “
 “ 20 “ Manvers
 “ 1 “ “
 “ 18 “ Cavan

Essex, North

Inspector—D. Chenay, Windsor

Schools—No. 2 Township of W. Sandwich
 “ 7 “ “
 “ 3 “ “
 Sep. “ 2 “ N. Tilbury
 Sep. “ 10 “ “
 “ 3 “ “
 “ 6 “ Rochester

Essex, South

Inspector—D. A. Maxwell, Ph.D., Windsor

Schools—No. 10 Township of S. Gosfield
 “ 10 “ Anderdon
 “ 10 “ S. Colchester
 “ 5 “ S. Sandwich

Glengarry

Inspector—D. McDiarmid, M.D., Maxville

Schools—No. 8 Township of Lancaster
 “ 23 “ Kenyon

Grey, East

Inspector—S. Huff, B.A., Meaford

Schools—No. 8 Township of St. Vincent
 “ 4 “ Collingwood
 Union “ 6 “ Collingwood

Grey, South

Inspector—N. W. Campbell, Durham

School — No. 6 Township of Glenelg

Haliburton

Inspector—S. Phillips, B.A., Minden

Schools—No. 3 Township of Stanhope
 “ 5 “ Machar
 “ 1 “ Chisholm
 “ 2 “ Papineau
 “ 1 “ Cameron
 “ 9 “ S. Himsworth
 “ 4 “ Ferris
 “ 6 “ Cardiff

SCHOOLS FOR WHICH TEMPORARY CERTIFICATES

Hastings, North

Inspector—W. Mackintosh, Madoc

Schools—No.	1	Township of	Dungannon
"	3	"	Farady
"	5	"	Bangor
"	1	"	Glamorgan
"	6	"	Bangor
"	6	"	Elzever
"	1	"	Bangor
"	2	"	Mayo
"	10	"	Marmora
"	9	"	Dungannon
"	8	"	Herschel
"	6	"	Wallaston
"	4	"	Limerick
"	8	"	Wallaston
"	5	"	Carlow

Hastings, South

Inspector—H. J. Clarke, Belleville

Schools—Deseronto
No. 18 Township of Hungerford

Kent, West

Inspector—J. H. Smith, M.A., Chatham

Schools—No.	14	Township of	Dover
"	1	"	"
"	13	"	"

Lambton, West

Inspector—J. Voaden, M.A., Sarnia

Schools—No.	11	Township of	Sombra
"	6	"	Moore

Lanark

Inspector—F. L. Michell, M.A., Perth

Schools—No.	4	Township of	Darling
"	2	"	"
"	6	"	"
"	1	"	"
"	1	"	Dalhousie
"	2	"	S. Sherbrooke
"	2	"	Lavant
"	3	"	Lanark
"	12	"	"
"	5	"	Ramsay
"	13	"	Drummond
"	1	"	Lavant
"	5	"	Darling
"	3	"	Ramsay
"	5	"	Lavant
Union	11, 14	"	Drummond
"	14	"	Montague

Leeds and Grenville, No. 1

Inspector—W. Johnston, LL.B., Athens

Schools—No. 2 Township of Leeds and
Lansdowne Front

Leeds and Grenville, No. 2

Inspector—R. Kinney, M.D., Brockville

Schools—No.	11	Township of	Wolford
"	18	"	"
"	10, 18	"	Kitley
"	6	"	Yonge

Leeds and Grenville, No. 3

Inspector—T. A. Craig, Kemptville

Schools—No.	20	Township of	Augusta
"	12	"	"
"	24	"	"
"	14	"	"
"	21	"	"
"	5	"	Oxford

Lennox and Addington

Inspector—D. A. Nesbitt, M.A., Newburgh

School—No. 6 Township of Denbigh

Lincoln

Insp.—W. W. Ireland, B.A., St. Catharines

School—No. 4 Township of Caistor

Manitoulin Island

Inspector—J. McLaughlin, Gore Bay

School—No. 1 Township of Tehkummah

Middlesex, East

Inspector—P. J. Thompson, B.A., London

School—No. 15 Township of N. Dorchester

District of Muskoka

Inspector—H. R. Scovell, B.A., Bracebridge

Schools—No.	7	Township of	Stephenson
"	7	"	Brunel
"	8	"	Stephenson
"	7	"	Stisted
"	6	"	Franklin
"	9	"	Draper
"	2	"	Franklin
"	5	"	Draper
"	6	"	Watt
"	5	"	Wood

District of Nipissing

Inspector—J. B. McDougall, North Bay

Schools—No.	2	Township of	Casey
"	5	"	Caldwell
"	2	"	Blezard
"	1	"	Hammer
"	4	"	Widdifield
"	1	"	Dunnet
"	1	"	Caldwell
"	1	"	Ingram
"	3	"	Rayside
"	1	"	McKerson
"	3	"	Widdifield
"	5	"	Kirkpatrick
"	1	"	Maitland
"	1	"	Jennings
"	1	"	Hugel
"	3	"	Cartwright
"	5	"	Widdifield
"	2	"	Sebastopol
"	4	"	Springer
"	2	"	Korah
"	3	"	Springer
"	3	"	Dunnet

Nipissing (continued)

Schools—No.	2	Township of	Badgerow
	3a	"	Dymond
"	4	"	Kirkpatrick
"	1	"	Brethour
"	1	"	Kirkpatrick
"	1	"	Broder

Norfolk

Inspector—H. F. Cook, B.A., Simcoe

Schools—No.	11	Township of	Windham
"	23	"	N. Walsingham
"	19	"	E. South
"	9	"	Woodhouse
"	10	"	Charlotteville
"	17	"	N. Walsingham

Northumberland

Inspector—A. Odell, Cobourg

Schools—No.	4	Township of	Percy
"	21	"	Cramahe
Union	18	"	"

Ontario, South

Inspector—J. Waugh, D.Pæd., Whitby

School—No. 4 Township of E. Whitby

District of Parry Sound

Inspector—Rev. Geo. Grant, B.A., Orillia

Schools—No.	3	Township of	McMurrich
"	2	"	Croft
"	1	"	Hardy
"	1	"	Mills
"	3	"	Carling
Union	2	"	Wilson
Union	3	"	Pringle

Prescott and Russell

Inspector—W. J. Summerby, Russell

Schools—No.	9	Township of	Clarence
"	10	"	Caledonia
"	5	"	Cambridge
"	7	"	Cumberland

Renfrew

Inspector—E. T. White, B.A., Pembroke

Schools—No.	4	Township of	Radcliffe
"	12	"	Ross
"	3	"	Rolph
"	4	"	Wilberforce
P. Sep.	2	"	Hagarty
"	4	"	Bagot
"	7	"	Radcliffe
"	4	"	Rolph
"	7	"	Ross
"	7	"	Wilberforce
Cobden			

Simcoe, East

Inspector—I. Day, B.A., Orillia

Schools—No.	11	Township of	Tay
"	7	"	Orillia
"	12	"	Tay
Union	8	"	Matchedash

Simcoe, Southwest

Inspector—Rev. T. McKee, B.A., Barrie
School—No. 7 Township of Vespra

Stormont

Inspector—A. McNaughton, Cornwall

Schools—No. 1 Township of Finch
" 15 " "

Districts of Thunder Bay and Rainy River

Inspector—J. Ritchie, Port Arthur

Schools—No.	1	Township of	Dorion
"	1	"	Aylesworth
"	3	"	Gillies
"	1	"	Ignace
"	2	"	Dorion
"	8	"	Pattullo
"	1	"	Woodyatt
Union	1	"	Gillies
"	1	"	Mine Centre
"	1	"	Pellatt
"	2	"	Lealand
"	1	"	Savanne
"	1	"	Burriess
"	4	"	Blue
"	7	"	Southworth

Victoria, East

Inspector—J. H. Knight, Lindsay

Schools—No. 5 Township of Verulam
" 12 " "

Victoria, West

Inspector—W. H. Stevens, B.A., Lindsay

Schools—No.	6	Township of	Dalton
"	5	"	Ryde
"	5	"	Dalton
"	3	"	Ridout

Waterloo, No. 1

Inspector—T. Pearce, Berlin

School—No. 28 Township of Waterloo

Waterloo, No. 2

Inspector—F. W. Sheppard, Berlin

School—No. 25 Township of N. Dumfries

R. C. Separate School Inspectorates

Inspector—V. H. Gaboury, Plantagenet

Schools—No.	2	Township of	Bonfield
"	2	"	Stafford
"	8	"	Alfred
"	3, 4, 10	"	Caledonia

Inspector—J. E. Jones, Mattawa

Schools—Sarnia			
No.	6	Township of	Dilke
"	6	"	W. Burgess
"	3	"	E. Luther



Summer Classes at Toronto for High, Public and Separate School Teachers.

In connection with the Faculty of Education, the University of Toronto offers classes for the different grades of teachers. The enrolment of students will begin at the University on June 29th next, and the work of instruction on the 2nd of July, continuing until August 8th.

The programme of instruction includes the following courses :—

History of Education, and Educational Systems.

Principles of Education and General Method.

Applied Psychology.

Elementary Science (especially suitable for Continuation Schools and Fifth Class teachers).

Elementary Art (suitable for all grades of teachers, including candidates for Specialists' certificates).

Hygiene.

Physical Training.

The details of the different courses are contained in the calendar of the University which was distributed amongst the teachers about a month ago and which may be obtained on application to the Registrar of the University.

To teachers of the High, Public and Separate Schools all the foregoing classes will be free. The Education Department will pay the fee of all such who attend.

Application for admission to any of these classes should be made to the Registrar of the University by June 10th.

R. A. PYNE,

Minister of Education.

EDUCATION DEPARTMENT,
TORONTO, May 26th, 1908.



Preliminary Announcement

OF THE

Faculty of Education

QUEEN'S UNIVERSITY

Kingston, Ont.

For Arts and Science Calendars apply to
George Y. Chown.

For Medical Calendar apply to
F. Etherington, M.D.

ANNOUNCEMENT.

CECIL F. LAVELL, M.A., *Professor of the History of Education and Dean of the Faculty.*

O. J. STEVENSON, M.A., D. Paed., *Associate Professor of Education.*

G. Y. CHOWN, B.A., *Registrar.*

The first session of the Faculty of Education in Queen's University will open on October 1st, 1907, and close May 31st, 1908. Organized, like the corresponding Faculty in Toronto, under the regulations of the Education Department, it is designed to take the place of the Ontario Normal College, and to give to the students who are preparing themselves for the teaching profession the benefit of contact with the University. Its purpose will be the practical and theoretical training of teachers for the Public and High School work of Ontario. Intending students should communicate with the Registrar at any time during August or September, and must register for either General or Advanced Course not later than October 4th. Students will meet the Dean for announcements and organization in Convocation Hall, at 9:30 a.m., October 1st.

Later announcement will be made of the complete list of instructors in the several departments.

FACULTY OF EDUCATION.

QUEEN'S UNIVERSITY.

Session of 1907-8.

GENERAL REGULATIONS.

I. Students in attendance in the Faculty of Education shall be classified as *Regular* students and *Occasional* students. Regular students shall be graduates in Arts of any University in the British Dominions, or shall hold Senior Teachers' Academic Standing under the Regulations of the Education Department of Ontario, and shall not be less than eighteen years of age.

The courses of study shall be a *General Course*, an *Advanced Course*, and *Special Courses*. Regular students shall pursue a *General* or an *Advanced Course*. Subject to the approval of the Faculty of Education, *Occasional* students may be admitted to such *Special* courses as may be offered by the Faculty.

II. A *General Course* shall consist of three parts :

Part I.

1. The History of Education and Educational Systems, the Principles of Education, Elementary and Applied Psychology, School Administration and School Law, School Management, General Method, and special Methods in the following subjects of the High and Public School Courses :

English, History, Geography, Mathematics, Latin, and one of the following groups:—

(a) Biology, Physics, Chemistry and Mineralogy ;

(b) French and German ;

- (c) Greek and French ;
- (d) Greek and German.

2. Such a review by the student, from an academic standpoint, of the foregoing subjects as is required for the High and Public School Courses.

Part II.

A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work, and Household Science (for women) of the Public School course, and the Reading and Physical Culture of both the High and the Public School Course.

Part III.

Observation and Practice Teaching in the Public and the High Schools of Kingston, with Observation in ungraded rural schools. The Observation will involve the equivalent of fifty school lesson-periods ; and the Practice Teaching, the equivalent of twenty school lesson-periods ; or of more, in both cases, according to the aptitude and the progress of the student.

In both the Observation and the Practice Teaching of this course, the emphasis will be laid upon the work of the Public Schools and the Lower School of the High Schools.

III. An *Advanced* Course shall consist of three parts :

Part I.

1. The History of Education and Education Systems, the Principles of Education, Applied Psychology, School Administration and School Law, School Management, General Method, and

special Methods in the following subjects of the High and Public School courses :

English, History, Geography, Mathematics, Latin, and one of the following groups :—

- (a) Biology, Physics, Chemistry and Mineralogy ;
- (b) French and German ;
- (c) Greek and French ;
- (d) Greek and German.

The instruction in the History of Education and Educational Systems, the Principles of Education, and Applied Psychology, in this sub-section will be of an advanced character, and will assume a knowledge of Elementary Psychology and Ethics.

2. Such a review by the student from the academic standpoint, of the foregoing subjects as is required for the High and the Public School courses.

Part II. An option is allowed between 1 and 2.

1. A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work and Domestic Science (for women), of the Public School course, and the Reading and Physical Culture of both the High and the Public School course.

2. A course of instruction equivalent to Course 1 preceding, and approved by the Faculty of Education, in one of the academic departments for Specialists' certificates recognized by the Education Department, with the Reading and Physical Culture of the High School Course.

Part III.

Observation and Practice Teaching as defined in Part III of the General Course. In the case of students who elect option 2 of an Advanced course, the emphasis will be laid upon the work of the High Schools ; and, in the case of other students, on the work of the Public Schools and the Lower School of the High Schools.

IV. Special Courses shall include :

1. (a) Courses for Specialists under the Regulations of the Education Department ;

(b) A course for Inspectors of Public Schools ;
and

(c) Such other Special Courses as may be defined by the Faculty from time to time.

2. (a) Throughout the General and Advanced Courses, special provision will be made for candidates for diploma as Specialists.

(b) For a Public School Inspector's diploma there will be an examination open to those who have fulfilled the conditions prescribed by the Education Department for the public School Inspectors' Certificates. The subjects of the examination will be as follows :

Modern Systems and Tendencies in Education ;
School Economics ; History of Public Education in Ontario ; School Administration and Law ;
School Inspection and Supervision ; including the Supervision of Instruction in all subjects of the Public School Course.

V. Students with Senior Teachers' standing shall take the General Course. Subject to the approval of the Faculty of Education, other regular students may elect the General or the Advanced Course.

Regular students who complete the General or the Advanced Course will receive the Diploma of their respective courses.

Regular students in the General or the Advanced course, who hold academic certificates as Specialists and who complete their special and their regular courses, will receive Diplomas as Specialists.

Bachelors in Arts who obtain first-class honour standing in one of the Advanced courses will be entitled, under the same conditions as obtain in the Faculty of Arts, to count it as one of the subjects for the Master's Degree in Arts. Graduates in Arts who obtain Honour standing in the subjects of either Part I or Part II, 2, of an Advanced course may submit such standing *pro tanto* for the Doctor's degree in Philosophy.

VI. The standing of the students in attendance in a General or an Advanced Course shall be determined by the combined results of the term work and the final examinations. The term work shall consist of such exercises and other tests as the Faculty may prescribe. The aggregate of marks for the final examinations shall not be greater than the aggregate for the term work.

The regulations as to percentages, honours and supplemental examinations that obtain in the Faculty of Arts shall apply to the courses in the Faculty of Education.

An unsuccessful candidate for a Diploma in the General or the Advanced course may be required, and candidates unsuccessful in Part III of either course shall be required, to attend a second session and repeat both the term work, and the final examinations. If an unsuccessful candidate be required, not to attend a second session, but to repeat the final examinations in whole or in part, he may take such

examinations as may be provided, in May or September. On the recommendation of the Faculty, candidates who fail in part I of an Advanced Course, with Option 1, may be granted a diploma in the General Course.

VII. 1. Regular attendance in the General and the Advanced course is compulsory, except for such students as are exempt from attendance under the Regulations of the Education Department of Ontario, or under Section VI.

2. All students, so exempt, who are duly registered in the Faculty and who pay the annual fee of \$15.00 (which shall not in this case include the fee for examination) may receive from the members of the Faculty such guidance and instructions in their Courses as may reasonably be given to students not in attendance.

VIII. The annual fee for the General or the Advanced Courses (with or without the course for Specialists), which shall include the library, gymnasium and examination fees, shall be \$15.00. For Special Courses, or Supplemental examinations, or any cases not provided for herein, the fee schedule shall be such as obtained in the Faculty of Arts.

COURSES OF INSTRUCTION.

Note—The bibliographies given below are merely *suggestive*: no text-books are *required*. The first book mentioned in each bibliography is to be preferred.

Part I.

HISTORY OF EDUCATION AND EDUCATIONAL SYSTEMS

General Course :

Evolution of Education in Primitive Society. Oriental Education. Greek Life and Education. Roman Life and Education. Education in Middle Ages. Scholasticism and the Rise of the Universities. Renaissance and the Rise of Humanism. Reformation and Counter-Reformation. Realism and Science in Education. Education according to Nature. Psychological and Sociological Aspects of Education. Education in Germany, Great Britain, United States and Ontario.

References :—

Quick. Educational Reformers.

Davidson. A History of Education.

Advanced Course :

The General Course repeated, with a detailed study of special periods and movements.

References :—

Monroe. A Text-book on the History of Education.

Laurie. Pre-Christian Education.

Davidson. Education of the Greek People.

Woodward. Vittorino da Feltre and other Humanist

Laurie. John Amos Comenius. [Educators.]

Davidson. Rousseau and Education according to Nature.

Pinloche. Pestalozzi and the Modern Elementary School

De Garmo. Herbart and the Herbartians.

Hughes. Froebel's Education Laws for all Teachers.

PRINCIPLES OF EDUCATION.

General Course:

Education as a Science. Meaning and Aim of Education. Its Foundations. Factors in Education.

Unity of Mental Life. Development of Self-Activity. Emotions, Habit, and Will in Education. Sensory and Motor Training. Training of Attention, Memory, and Judgment. Courses of Study. Interrelation of Subjects. Educational Values. Method in Teaching.

References :—

Horne. The Philosophy of Education.

Dewey. School and Society.

Dewey. Ethical Principles Underlying Education.

Butler. The Meaning of Education.

Advanced Course :

This Course involves an intensive study of the subject as outlined in the General Course.

References :—

The Text-Books mentioned in the General Course.

Spencer. Essay on Education.

Bain. Education as a Science.

Dewey. The Child and the Curriculum.

PSYCHOLOGY.

General Course :

The Physical Basis of Mind. Inborn Tendencies. Sensation. Perception. Attention. Memory. Imagination. Conception. Apperception. Judgment and Reasoning. Feeling and Emotions. Interest. Habit. Will. Character. Development of Motor Ability. Curiosity. Suggestion and Imitation. Heredity and Environment. Adolescence, and Child Study.

References :—

James. Talk to Teachers.

Kirkpatrick. The Fundamentals of Child Study.

Advanced Course:

The General Course repeated, with studies of special problems in Education.

References :—

Bagley. The Educative Process.

Thorndike. Educational Psychology.

Thorndike Notes on Child Study.

Harris. The Psychologic Foundations of Education.

Hall. Adolescence.

SCHOOL ADMINISTRATION AND LAW.

Problems of School Administration. Functions of Various Types of Schools. State and School. Forms of Educational Control. Executive and Legislative Functions of School Board and School Officers. Business Administration. Sites and Buildings. Compulsory Education. Industrial Education. Schools for Delinquents and Defectives. School and Society. Co-operation of School with other Educational Agencies. School Law and Regulations of Ontario.

References :—

The School Law and Regulations of Ontario.

Chancellor. Our Schools, their Administration and

Hanus. A Modern School. [Supervision.

SCHOOL MANAGEMENT.

Moral and Intellectual Purposes of Schools. Discipline, Incentives, Punishments. Organization. Grading, School Hygiene. Programmes and Timetables. Recitation, and Questioning. Examinations.

References :—

Bagley. Class-room Management.

Shaw. School Hygiene.

GENERAL METHOD.

Meaning of Instruction. Instruction and Education. Psychologic Basis of Method. General Principles. Functions of Recitative. Conduct of Recitation.

References :—

Thorndike. Principles of Teaching.

McMurry. Method of the Recitation.

SPECIAL METHODS.

Methods of Instruction in the following subjects as outlined in the Public and High School Courses

of Study : English—Spelling, Composition, Literature, Grammar and Rhetoric, History, Geography, Mathematics, Arithmetic, Mensuration, Algebra, Geometry and Trigonometry, Latin, Greek, French, German, Zoology and Botany, Physics, Chemistry, Mineralogy.

References :—

The Text-books authorized for the Public and High Schools of Ontario.

Hinsdale. Teaching the Language Arts.

Carpenter, Baker and Scott. The Teaching of English.

McMurry. The Special Method in History.

Bourne. The Teaching of History and Civics.

Redway. The New Basis of Geography.

Smith. The Teaching of Elementary Mathematics.

Young. The Teaching of Mathematics in Secondary Schools.

Bennett and Bristol. The Teaching of Latin and Greek.

Widgery. The Teaching of Languages in Schools.

Smith & Hall. The Teaching of Chemistry and Physics.

Lloyd and Bigelow. The Teaching of Biology.

Part II.

(For further details consult the Public and High School Courses of Study.)

Part II consists of Academic and Professional courses of instruction in the following subjects :

Nature Study—Animal and Plant Life, and Life on the Farm. School Gardens. Observation of Farm. Garden, and Household Activities. Soils and Seasons. Water, Air, Heat, etc.

Elementary Science—Botany, Zoology, Physics, and Chemistry as prescribed for the Fifth Forms and the Continuation Classes of the Public Schools.

Music—Singing, Rote and Sight Work.

Art—Freehand. Color Work. Clay Modelling. Geometrical Forms. Water-Color Sketches. Model and Memory Drawing. Freehand perspective. Corelation with other departments.

Commercial Work—Writing, Book-keeping, Business Forms, Stenography, Type-writing.

Constructive Work—Paper Cutting and Folding. Basket and Raffia Work. Cardboard and Paper Construction. Ornamentation. Knife and Wood-work. Use of Wood-working Tools. Exercises in Construction.

Household Science—Needlework, Cookery, Economics of Household. Correlation with other subjects.

Reading—Voice-training, Phonics, Oral and Silent Reading.

Physical Culture—Physical Exercises, Games, Gymnastics, Calisthenics, Drill, Treatment of Emergencies, Personal Hygiene.

References:—

The Text-books authorized for the Public and High Schools of Ontario.

COURSES FOR SPECIALISTS.

Candidates for diplomas as Specialists are expected to familiarize themselves with recent literature on the professional phases of their special departments.

COURSES FOR INSPECTORS.

References:—

Eliot. Educational Reform.

Gilman. University Problems.

Hanus. Educational Aims and Values.

Chancellor. Our Schools. Their Administration and [Supervision.

Hall. Adolescence.

Vincent. The Social Mind and Education.

Dewey. The Educational Situation.

Dewey. The Child and the Curriculum.

Herrick. Commercial Education

Ware. The Educational Foundations of Industry.

Butler. Education in the United States.

Seeley. German School Systems. [and Ireland.

Balfour. The Educational Systems of Great Britain, *Burrage and Bailey.* School Sanitation and Decoration

Briggs. Modern American School Buildings.

Hodgins. Documentary History of Education in Upper [Canada.

The Reports of the Minister of Education of Ontario.

The School Law and Regulations of Ontario.

PROVINCIAL CERTIFICATES.

1. The Education Department accepts the courses of the Faculty of Education in the University of Queen's College as follows :

(a) The General Course and the Advanced Course with option 1 of Part II, as the professional courses for a First Class Public School and a High School Assistant's Interim certificate.

(b) The Advanced Course with option 2 of Part II, as the professional course for a High School Assistant's Interim certificate.

(c) The Special courses for Specialists as the professional courses for Specialists' Interim certificates.

(d) The Special course for Public School Inspectors, as the professional course for a Public School Inspector's certificate. (To come into effect after June, 1908.

2. Certificates of qualification may be awarded by the Education Department on the results of the examinations of the Faculty of Education as follows :

(1) Interim High School certificates, one or both as the case may be.

(a) To students who have attended regularly and have fulfilled the conditions prescribed by the Education Department for candidates for teachers' certificates, and who have obtained in each of Parts I, II, and III of their courses, 40% of the marks for each subject, and 60% of the aggregate of the marks for the term's work and final examinations.

(b) On the recommendation of the Faculty of Education, to students in attendance in an Advanced Course with option 1 of Part II, who have failed in

Part I, but who have fulfilled the other conditions of (a) above.

(c) To students who are exempt from attendance and from the examination in Part III of either the General or the Advanced Course and have fulfilled the conditions, prescribed by the Education Department for candidates for teachers' certificates, and who have obtained at the examinations in each of Parts I and II of their course 40% of the marks for each subject and 50% of the aggregate marks.

(2) Interim Specialists' certificates :—

(a) To candidates in attendance who have fulfilled the conditions of the General or the Advanced Course and who have obtained 50% of the marks assigned to the term's work and final examinations in the Special Course of their department.

3. (1) Candidates for Interim High and Public School certificates in attendance in the Faculty of Education, who have passed in Part III, shall take at their final examinations both Parts I and II of the General or of the Advanced Course, as the case may be.

(2) Candidates who have passed in Part III, but who fail in either Part I or Part II, or in both Parts, may, on the recommendation of the Faculty, complete their courses at a subsequent examination. Candidates who fail in Part III shall take another session.

(3) Candidates for Interim High and Public School certificates, who are exempt from attendance under the Regulations of the Education Department, or under the conditions of (2) above, may take Part I of either the General or the Advanced Course at the May examination, and either Part I or Part II of said course or both of said Parts at the September examination.

(4) Candidates for Public School Inspectors' certificates, and candidates for Specialists' certificates, who are exempt from attendance, may take their examinations in May or September.

4. Teachers who have been granted only High School Assistants' Interim certificates may, without further attendance, obtain First Class Public School Interim certificates as well, by passing the examinations in the subjects of option 1, Part II of the Advanced Course.

5. Teachers who hold First Class Public School or High School Assistants' certificates, interim or permanent, may, without further attendance, obtain Specialists' Interim standing, provided they hold the necessary academic certificate and pass the professional examinations for such standing in the special courses prescribed by the Faculty of Education.

6. Teachers who hold permanent Second Class certificates, with at least Senior Teachers' academic standing, and who have taught successfully for at least five years, may write at the examination without taking the prescribed session, or being required to pass in Part II (Observation and Practice Teaching) of either the General or the Advanced Course.

7. A student preparing for a certificate of qualification issued by the Education Department may take in addition to the subjects of his course in the Faculty of Education, a course in a subject recognized by the Education Department for academic certificates, but only with the consent of the Faculty of Education ; and no such course shall be allowed to interfere with his regular course as prescribed in the Faculty of Education.

8. Candidates for Specialists' certificates under the Regulations of the Education Department shall

have their academic standing approved by the Education Department before entering upon their special courses.

9. Subject to the approval of the Minister of Education,, the Faculty of Education may make such modifications of the scheme of optional groups in III, Part I, and in IV, Part I, as will suit the condition of candidates who obtained their academic standing in courses other than those recognized in the Regulations of 1904.

THE FACULTY OF EDUCATION.

GENERAL INFORMATION.

The Faculty of Education was created by resolution of the Governors of the University in December, 1906. Its first curriculum was adopted in June, 1907, and it begins its first session in October, 1907.

The Faculty of Education is the University's professional School of Education. Primarily it trains candidates for diplomas as special or regular teachers, and in particular for Provincial certificates as First-class Public School teachers, and as High School Assistants and Specialists. It also gives instruction looking towards post-graduate degrees in Arts and Philosophy, and offers, for the present at least, courses for degrees in Pedagogy.

Pending the erection of its own Model Schools, the Faculty will use the Public and High Schools of Toronto for purposes of Observation and Practice-teaching. It will conduct its other exercises in the rooms of the University and its Colleges, and amid University influences.

The students in Education may use the University's library, gymnasium, athletic fields, etc., under such conditions as obtain with other students. In short, they enjoy all the privileges of the other undergraduates and are subject to the same regulations.

Application for admission to the Faculty should be made to the Registrar of the University before October 1. All fees should be paid to the Bursar.

BOARD AND LODGING.

(Extract from Calendar).

Lodging and board are readily obtainable in private boarding-houses within convenient distance of the University at a cost of from three dollars per week upwards for lodging with board; or, rooms may be rented at a cost of from one dollar per week upwards, and board obtained separately at reasonable rates. A list of accredited boarding houses is kept by the Secretaries of the Young Men's Christian Associations of University College and Victoria College, and students are recommended to consult them with reference to the selection of suitable accommodation.

RESIDENCES.

For Men.

Trinity College.....	Rev. T. C. Street Macklem, Provost.
St. Michael's College.....	Rev. Father Cushing, Superior.
Wycliffe College.....	Rev. T. R. O'Meara, Principal.
Knox College.....	Rev. Wm. MacLaren, Principal.

For Women.

Queen's Hall.....	Mrs. John Campbell, Dean.
Annesley Hall.....	Miss M. E. T. Addison, B.A., Dean.
St. Hilda's College.....	Miss M. Cartwright, Principal.

REGULATIONS AS TO COURSES.

SESSION OF 1907-1908.

- I. The Session of the Faculty of Education shall begin on October 1st and close on May 31st.
- II. Students in attendance in the Faculty of Education shall be classified as *Regular* students and *Occasional* students. Regular students shall be graduates in Arts of any University in the British Dominions, or shall hold Senior Teachers' academic standing under the Regulations of the Education Department of Ontario, and shall not be less than eighteen years of age.
- The courses of study shall be a *General Course*, an *Advanced Course*, and *Special Courses*. Regular students shall pursue a *General* or an *Advanced Course*. Subject to the approval of the Faculty of Education, *Occasional* students may be admitted to such *Special* courses as may be offered by the Faculty.
- III. A *General Course* shall consist of three parts:—

Part I.

1. The History of Education and Educational Systems, the Principles of Education, Elementary and Applied Psychology, School Administration and School Law, School Management, General Method, and Special Methods in the following subjects of the High and Public School Courses:
English, History, Geography, Mathematics, Latin, and one of the following groups:—
 - (a) Biology, Physics, Chemistry and Mineralogy.
 - (b) French and German.
 - (c) Greek and French.
 - (d) Greek and German.
2. Such a review by the student, from an academic standpoint, of the foregoing subjects as is required for the High and the Public School Courses.

Part II.

A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work, and Household Science (for women) of the Public School Course, and the Reading and Physical Culture of both the High and Public School Courses.

Part III.

Observation and Practice Teaching in the Public and the High Schools of Toronto, with Observation in ungraded rural schools. The Observation will involve the equivalent of fifty school lesson-periods; and the Practice Teaching, the equivalent of twenty school lesson-periods; or of more, in both cases, according to the aptitude and the progress of the student.

In both the Observation and the Practice Teaching of this Course, the emphasis will be laid upon the work of the Public Schools and the Lower School of the High Schools.

IV. An *Advanced Course* shall consist of three parts:—

Part I.

1. The History of Education and Educational Systems, the Principles of Education, Applied Psychology, School Administration and School Law, School Management, General Method, and Special Methods in the following subjects of the High and Public School Courses:

English, History, Geography, Mathematics, Latin; and one of the following groups:

- (a) Biology, Physics, Chemistry and Mineralogy.
- (b) French and German.
- (c) Greek and French.
- (d) Greek and German.

The instruction in the History of Education and Educational Systems, the Principles of Education, and Applied Psychology in this sub-section will be of an advanced character, and will assume a knowledge of elementary Psychology and Ethics.

2. Such a review by the student, from the academic standpoint, of the foregoing subjects as is required for the High and the Public School Courses.

Part II. An option is allowed between 1 and 2 of this Part.

1. A course of instruction, both academic and professional, in the Nature Study, Elementary Science, Music, Art, Commercial Work, Constructive Work, and Domestic Science (for women), of the Public School Course, and the Reading and Physical Culture of both the High and the Public School Courses.
2. A course of instruction equivalent to Course 1 preceding, and approved by the Faculty of Education, in one of the academic departments for Specialists' certificates recognized by the Education Department, with the Reading and Physical Culture of the High School Course.

Part III.

Observation and Practice Teaching as defined in Part III. of the General Course. In the case of students who elect Option 2, Part II., of an Advanced Course, the emphasis will be laid upon the work of the High Schools; and, in the case of other students, on the work of the Public Schools and the Lower Schools of the High Schools.

V. *Special Courses* shall include:

1. (a) Courses for Specialists under the Regulations of the Education Department.
(b) A course for Inspectors of Public Schools; and
(c) Such other Special Courses as may be defined by the Senate from time to time.
2. (a) Throughout the General and Advanced Courses, special provision will be made for candidates for diplomas as Specialists.
(b) For a Public School Inspector's diploma there will be an examination open to those who have fulfilled the conditions prescribed by the Education Department for Public School Inspectors' certificates. The subjects of the examination will be as follows:—

Modern Systems and Tendencies in Education; School Economics; History of Public Education in Ontario; School Administration and Law; School Inspection and Supervision; including the Supervision of Instruction in all subjects of the Public School Course.

VI. Students with Senior Teachers' standing shall take the General Course. Subjects to the approval of the Faculty of Education. other Regular students may elect the General or the Advanced Course.

Regular students who complete the General or the Advanced Course will receive the diploma of their respective course.

Regular students in the General or the Advanced Course, who hold academic certificates as Specialists and who complete their special and their regular courses, will receive diplomas as Specialists.

Bachelors in Arts who obtain honour standing in one of the Advanced Courses will be entitled, under the same conditions as obtain in the Faculty of Arts, to the Master's Degree in Arts with honours. Graduates in Arts who obtain honour standing in the subjects of either Part I. or Part II., 2, of an Advanced Course may submit such standing *pro tanto* for the Doctor's degree in Philosophy.

VII. The standing of the students in attendance in a General or an Advanced Course shall be determined by the combined results of the term work and the final examinations. The term work shall consist of such exercises and other tests as the Faculty may prescribe. The aggregate of marks for the final examinations shall not be greater than the aggregate for the term work.

The regulations as to percentages, honours and supplemental examinations that obtain in the Faculty of Arts shall apply to the courses in the Faculty of Education.

An unsuccessful candidate for a diploma in the General or the Advanced Course may be required, and candidates unsuccessful in Part III. of either course shall be required to attend a second session and repeat both the term work and the final examinations. If an unsuccessful candidate be required, not to attend a second session, but to repeat the final examinations in whole or in part, he may take such examinations as may be provided, in May or September. On the recommendation of the Faculty, candidates who fail in Part I. of an Advanced Course, with Option 1, may be granted a diploma in the General Course.

VIII. 1. Regular attendance in the General and the Advanced Courses is compulsory, except for such students as are exempt from attendance under the regulations of the Education Department of Ontario, or under Section VII.

2. All students, so exempt, who are duly registered in the Faculty and who pay the annual fee of \$15.00 (which shall not in this case include the fee for examination) may receive from the members of the Faculty such guidance and instruction in their courses as may reasonably be given to students not in attendance.

IX. The annual fee for the General or the Advanced Courses (with or without the course for Specialists), which shall include the library, gymnasium and examination fees, shall be \$15.00. For Special Courses, or Supplemental examinations, or any cases not provided for herein, the fee schedule shall be such as obtains in the Faculty of Arts.

PROVINCIAL CERTIFICATES.

1. The Education Department accepts the courses of the Faculty of Education in the University of Toronto as follows:—

(a) The General Course and the Advanced Course with option 1, Part II., as the professional courses for a First Class Public School and a High School Assistant's Interim certificate.

(b) The Advanced Course with option 2, of Part II., as the professional course for a High School Assistant's Interim certificate.

(c) The Special Courses for Specialists as the professional course for Specialists' Interim certificates.

(d) The Special Course for Public School Inspectors, as the professional course for a Public School Inspector's certificate. (To come into effect after June, 1908).

2. Certificates of qualification may be awarded by the Education Department on the results of the examinations of the Faculty of Education as follows:—

(1) Interim High and Public School certificates, one or both as the case may be.

(a) To students who have attended regularly and have fulfilled the conditions prescribed by the Education Department for candidates for teachers' certificates, and who have obtained in each of Parts I., II., and III. of their courses, 40% of the marks for each subject, and 60% of the aggregate of the marks for the term's work and final examinations.

(b) On the recommendation of the Faculty of Education, to students in attendance in an Advanced Course with option 1, of Part II., who have failed in Part I., but who have fulfilled the other conditions of (a) above.

(c) To students who are exempt from attendance and from the examination in Part III. of either the General or the Advanced Course and have fulfilled the conditions prescribed by the Education Department for candidates for teachers' certificates, and who have obtained at the examinations in each Parts I. and II. of their courses 40% of the marks for each subject and 60% of the aggregate of marks.

(2) Interim Specialists' certificates:—

(a) To candidates in attendance who have fulfilled the conditions of the General or the Advanced Course and who have obtained 60% of the marks assigned to the term's work and final examinations in the Special Course of their department.

(b) To candidates who are exempt from attendance and who have obtained 60% of the marks assigned the paper in their department.

(3) Public School Inspectors' certificates:—

To candidates who have obtained 40% of the marks for each subject and 60% of the aggregate.

3. (1) Candidates for Interim High and Public School certificates in attendance in the Faculty of Education, who have passed in Part III., shall take at their final examinations both Parts I. and II. of the General or of the Advanced Course, as the case may be.

(2) Candidates who have passed in Part III., but who fail in either Part I. or Part II., or in both Parts, may, on the recommendation of the Faculty, complete their courses at a subsequent examination without further attendance.

Candidates who fail in Part III. shall take another session.

(3) Candidates for Interim High and Public School certificates, who are exempt from attendance under the Regulations of the Education Department, or under the conditions of (2) above, may take Part I. of either the General or the Advanced Course at the May examination, and either Part I. or Part II. of said Course or both of said Parts at the September examination.

(4) Candidates for Public School Inspectors' certificates, and candidates for Specialists' certificates, who are exempt from attendance, may take their examinations in May or September.

4. Teachers who have been granted only High School Assistants' Interim certificates may, without further attendance, obtain First Class Public School Interim certificates as well, by passing the examinations in the subjects of option 1, Part II. of the Advanced Course.

5. Teachers who hold First Class Public School or High School Assistants' certificates, interim or permanent, may, without further attendance, obtain Specialists' interim standing, provided they hold the necessary academic certificate and pass the professional examinations for such standing in the Special Courses prescribed by the Faculty of Education.

6. Teachers who hold permanent Second Class certificates, with at least Senior Teachers' academic standing, and who have taught successfully for at least five years, may write at the examination without taking the prescribed session, or being required to pass in Part III. (Observation and Practice Teaching) of either the General or the Advanced Course.

7. A student preparing for a certificate of qualification issued by the Education Department may take in addition to the subjects of his course in the Faculty of Education, a course in a subject recognized by the Education Department for academic certificates, but only with the consent of the Faculty of Education; and no such course shall be allowed to interfere with his regular course as prescribed in the Faculty of Education.

8. Candidates for Specialists' certificates under the Regulations of the Education Department shall have their academic standing approved by the Education Department before entering upon their special courses.

9. Subject to the approval of the Minister of Education, the Faculty of Education may make such modifications of the scheme of optional groups in III., Part I., and in IV., Part I., as will suit the condition of candidates who obtained their academic standing in courses other than those recognized in the Regulations of 1904.

DETAILS OF COURSES.

(The bibliographies given in these details are merely *suggestive*. No text-books are *required*. The first book mentioned in each bibliography is to be preferred.)

PART I.

History of Education, and Educational Systems.

General Course:—Evolution of Education in Primitive Society. Oriental Education. Greek Life and Education. Roman Life and Education. Education in the Middle Ages. Scholasticism and the Rise of the Universities. Renaissance and the Rise of Humanism. Reformation and Counter-Reformation. Realism and Science in Education. Education according to Nature. Psychological and Sociological Aspects of Education. The Kindergarten. Modern Tendencies. Education in Germany, United States, Great Britain and Ontario.

References:—Quick. Educational Reformers.

Davidson. A History of Education.

Advanced Course:—The General Course as outlined above with a detailed study of special periods.

References:—Monroe. A Textbook in the History of Education.

Laurie. Pre-Christian Education.

Davidson. Education of the Greek People.

Woodward. Vittorino da Feltre and other Humanist Educators.

Laurie. John Amos Comenius.

Davidson. Rousseau and Education according to Nature.

Pinloche. Pestalozzi and the Modern Elementary School.

De Garmo. Herbart and the Herbartians.

Hughes. Froebel's Educational Laws for all Teachers.

PRINCIPLES OF EDUCATION:

General Course:—Education as a Science. Meaning and Aim of Education. Its Foundations. Factors in Education. Unity of Mental Life. Development of Self Activity. Emotions, Habit, and Will in Education. Sensory and Motor Training. Training of Attention, Memory, and Judgment. Courses of Study. Interrelation of Subjects. Educational Values. Method in Teaching, etc.

References:—Horne. Philosophy of Education.

Dewey. School and Society.

Dewey. Ethical Principles underlying Education.

Butler. The Meaning of Education.

Advanced Course.

An intensive study of the subjects as outlined in the General Course.

References:—The text-books mentioned in the General Course.

Spencer. Essay on Education.

Bain. Education as a Science.

Dewey. The Child and the Curriculum.

PSYCHOLOGY:

General Course:—Physical Basis of Mind. Inborn Tendencies. Sensation. Perception. Attention. Memory. Imagination. Conception. Apperception. Judgment and Reasoning. Feeling and Emotions. Interest. Habit. Will. Character. Development of Motor Ability. Curiosity. Suggestion and Imitation. Heredity and Environment. Adolescence and Child Study.

References:—James. Talks to Teachers.

Kirkpatrick. The Fundamentals of Child Study.

Advanced Course.

The General Course as outlined above with a study of special problems in Education.

References:—Bagley. The Educative Process.

Thorndike. Educational Psychology.

Thorndike. Notes on Child Study.

Harris. The Psychologic Foundations of Education.

Hall. Adolescence.

SCHOOL ADMINISTRATION AND LAW.

Problems in School Administration. Functions of Various Types of Schools. State and School. Forms of Education Control. Executive and Legislative Functions of School Boards and School Officers. Business Administration. Sites and Buildings. Compulsory Education. Industrial Education. Schools for Delinquents and Defectives. School and Society. Co-operation of Schools with other Educational Agencies. School Law and Regulations of Ontario.

References:—The School Law and Regulations of Ontario.

Hanus. A Modern School.

SCHOOL MANAGEMENT.

Moral and Intellectual Purposes of Schools. Discipline. Incentives. Punishments. Organization. Grading. School Hygiene. Programmes and Time-Tables. Recitations and Questioning. Examinations.

References:—Bagley. Class-Room Management.

Shaw. School Hygiene.

GENERAL METHOD.

Meaning of Instruction. Instruction and Education. Psychologic Foundations of Method. General Principles. Function of the Recitation. Conduct of the Recitation.

References:—Thorndike. Principles of Teaching.

McMurry. Method of the Recitation.

SPECIAL METHODS.

Methods of Instruction in the following subjects as outlined in the Public and High School Courses of Ontario: English—Spelling, Composition, Literature, Grammar, and Rhetoric; History; Geography; Mathematics — Arithmetic, Mensuration, Algebra, Geometry, and Trigonometry; Latin; Greek; French; German; Science—Botany, Zoology, Physics, Chemistry and Mineralogy.

References:—Text-books authorized for the Public and High Schools of Ontario.

Hinsdale. Teaching the Language Arts.

Carpenter, Baker, and Scott. The Teaching of English.

McMurry. Special Method in History.

Redway. The New Basis of Geography.

Smith. The Teaching of Elementary Mathematics.

Young. The Teaching of Mathematics in Secondary Schools.

Bennett and Bristol. The Teaching of Latin and Greek.

Widgery. The Teaching of Languages in the Schools.

Lloyd and Bigelow. The Teaching of Biology.

Smith and Hall. The Teaching of Chemistry and Physics.

PART II.

(See the Public and High School Courses of Ontario for further details of the subjects of Part II.)

Nature Study:—Animal and Plant Life and Life on the Farm, School Gardens. Observation of Farm, Garden, and Household Operations. Soils and Seasons. Water. Air. Heat.

Elementary Science:—Botany, Zoology, Physics, and Chemistry as prescribed for the Fifth Forms and the Continuation Classes of the Public Schools.

Music:—Singing, Note and Sight-work.

Art:—Freehand. Color Work. Clay Moulding. Geometrical Forms. Water-Color Sketches. Model and Memory Drawing. Free-hand Perspective. Correlation with other Departments.

Commercial Work:—Writing. Book-keeping. Business Forms. Stenography. Type-writing.

Constructive Work:—Paper cutting and Folding. Basket and Raffia Work. Cardboard and Paper Construction. Ornamentation. Knife-and-Wood-Work. Use of Wood-working Tools. Exercises in Construction.

Household Science:—Needlework. Cookery. Household Economics. Correlation with other Subjects.

Reading:—Voice Training. Phonics. Oral and Silent Reading.

Physical Culture:—Physical Exercises. Games. Gymnastics. Calis-

thenics. Drill. Treatment of Emergencies. Personal Hygiene.
References:—The text-books authorized for the Public and High Schools of Ontario.

COURSES FOR SPECIALISTS.

Candidates for diplomas as Specialists should familiarize themselves with the recent literature on the professional phases of their special departments.

COURSE FOR INSPECTORS.

References:—Eliot. Educational Reform.
Gilman. University Problems.
Hanus. Educational Aims.
Chancellor. Our Schools—Their Administration and Supervision.
Hall. Adolescence.
Vincent. The Social Mind in Education.
Dewey. The Educational Outlook.
Dewey. The Child and the Curriculum.
Herrick. Commercial Education.
Ware. Educational Foundations of Industry.
Butler. Education in the United States.
Seeley. The German School System.
Balfour. The Educational System of Great Britain and Ireland.
Burrage and Bailey. School Sanitation and Decoration.
Briggs. Modern American School Buildings.
Hodgins. Documentary History of Education in Upper Canada.
School Law and Regulations of Ontario.
Recent Reports of the Minister of Education of Ontario.

FIRE DRILL REGULATIONS



*The Normal and Model
Schools   Toronto*

Normal & Model Schools, Toronto

FIRE DRILL REGULATIONS

Gongs 1. The Gongs will be used for Fire Drill only.

Alarm 2. Several strokes of the gong, in rapid succession, will give the alarm.

Attention to Alarm 3. As soon as an alarm is given, all the students and pupils shall place anything they may have in hand on the desk or form as the case may be, come to attention and await commands of the officer in charge of the room at the time.

Words of Command 4. The commands must be uniform throughout the school and as follows :—(1) Fire Drill, (2) Stand, (3) Up, (4) Form, (5) Quick March. Commands (2), (3), (4) and (5) should be used at all times of dismissing.

Officers in Command 5. In the absence of a teacher from the room when an alarm is sounded, the commands will be given by the monitor appointed for this duty. At all other times the teacher in charge of the class will give the commands.

Order of Marching Out 6. The marching must be done in *Quick Time* and in double file by the First Classes, and in single file by all other classes. After passing through the outer doorway, the Second and Third Classes will march straight out along the centre walks towards the gates. Fourth Boys and Fifth Girls will turn to the *right* : Fourth Girls and Fifth Boys, to the *left* ; these four classes will then form in double file and come to the halt. The first classes will turn *South* ; Normal School students, those in Manual Training and Domestic Science, Kindergarten students and children, *North*.

Pupils Free from Incumbrance 7. No one shall take cap, coat, wrap or any other extra article with him, and there shall be absolutely no running, passing, crowding or talking, while on the march. After coming to the halt, the pupils will remain in position of attention and await further commands.

8. Monitors will be stationed at points along the route to give assistance, if necessary. The teachers will select the monitors and instruct them in their duties.

*Monitors
and Their Duties*

9. A pupil who is out of his place and still in the room when an alarm is given, shall fall in at the end of the line nearest to him at the time. Those in the halls or basements shall march in single file by the nearest way to their places in the class lines outside; but in no case must the line of march from any room be broken.

*Pupils out of
Regular Place*

10. In returning to the rooms, the pupils will be directed to turn *about* and to march in single file back to their places in the rooms, except the pupils of the First classes, who will march in double file.

The Return

11. When students are in any of the Model School rooms at the time an alarm is given, they should march out in single file, immediately after the pupils of the room.

*Students
in Model School*

12. In case of fire, pupils shall make no attempt to save the clothing in the lockers, except under direct instructions from the teachers.

*Removal
of Clothing from
Lockers*

13. If a class is in the Drill Hall when an alarm is given, the pupils shall follow absolutely the orders given by the instructor. The usual way out will be down the stairway—Boys turning *East* into the court and out along the driveway; Girls turning *West* and out to the grounds. But in certain cases the order may be given to pass through one of the class rooms and out by the East or West stairway. This latter course should be taken with a Second or Third Class, and in single file.

*Classes
in Drill Hall*

14. At no time must any of the passages be obstructed by chairs, map-stands, or other impediments.

*Duty of Teachers
Students and
Pupils*

15. These regulations should be thoroughly mastered by all the teachers and students, and understood by the pupils.

March 15th, 1907.

THE NATIONAL CIVIC FEDERATION

TEACHERS' VISIT TO EUROPE

September, 1908, to March, 1909

CIRCULAR No. 2

Information for Teachers Visiting the
United Kingdom



NEW YORK

April, 1908

Information for Teachers Visiting the United Kingdom

The National Civic Federation takes great pleasure in announcing to the teachers who will participate in the visit to Europe the arrangements made by Mr. Alfred Mosely for their comfort while visiting the United Kingdom.

GENERAL COMMITTEE.

1. The project of the visit of the American teachers to Great Britain has awakened a widespread interest and support throughout the country. Mr. Mosely has associated with himself as a general reception committee a large number of influential persons throughout the United Kingdom, representing the various organizations and institutions and social groups which are associated there with the cause of education, and indeed with all the forces of social welfare. The co-operation of the leading men of England as represented by this committee, insures that the visiting teachers will receive a cordial welcome wherever they go, and that whatever can be done for their comfort and for the success of the enterprise will be done. The General Committee consists of the following:

Lord Archbishop of Canterbury.

The Lord Mayor of London.

Rt. Hon. Joseph Chamberlain.

Rt. Hon. R. McKenna, President of the Board of Education in the British Cabinet.

Rt. Hon. A. J. Balfour, late Prime Minister.

Lord Reay, late President of the Board of Education.

Professor T. H. Warren, Vice-Chancellor of Oxford.

The Duke of Sutherland, K.G.

Professor M. E. Sadler, late of the Board of Education.

Hon. Whitelaw Reid, the American Ambassador.

The Lord Bishop of Ripon.

Principal E. H. Griffiths, of Cardiff University.

Principal H. R. Reichel, of Bangor University.
 Sir Henry Roscoe, D.C.L.
 Sir Cecil Clementi Smith, G.C.M.G.
 Principal Sir J. Rhys, of Jesus College, Oxford.
 Sir S. B. Boulton, A. Inst. C.E., F.R.G.S.
 Sir William Mather, M. Inst. C.E.
 The Rt. Hon. Charles Booth, P.C., etc.
 The Rt. Hon. J. Austin Chamberlain, P.C., M.P.
 The Lord Bishop of Manchester.
 The Rt. Hon. Lord Strathcona and Mount Royal, G.C.M.G., etc.
 The Rt. Hon. Lord Willoughby de Eresby, M.P.
 The Rt. Hon. Sir Herbert E. Maxwell, Bart., P.C., F.R.S., etc.
 The Rt. Hon. Lord Viscount Duncannon.
 The Rt. Hon. The Earl of Malmesbury.
 Sir R. L. Morant, C.B., Permanent Under Secretary Board of Education.
 Sir Frederick D. Dixon-Hartland, Bart., F.S.A., F.R.G.S., M.P.
 The Rt. Hon. Gerald Wm. Balfour, P.C.
 The Rt. Hon. H. O. Arnold-Forster, P.C., etc., M.P.
 The Hon. T. A. Brassey, M.A., F.R.G.S.
 Sir Wm. Reynell Anson, Bart., D.C.L., etc., M.P.
 George R. Parkin, Esq., C.M.G., LL.D.
 The Lord Mayors of: Bradford, Birmingham, Cardiff, Liverpool, Leeds, Manchester, Newcastle-on-Tyne, Sheffield. The Mayors of: Bootle, Brighton, Bolton, Bath, Bangor, Cambridge, Dover, Exeter, Halifax, Leicester, Norwich, Nottingham, Plymouth, Rochdale, Scarborough, Swindon.

Sir H. Mortimer Durand.	Sir Thomas Vezey Strong.
Professor Osler, of Oxford.	Sir Edwin A. Cornwall.
The Rt. Hon. Lord Desborough.	Sir W. J. Collins, M.P.
Sir Thomas Barclay, LL.B.	H. Llewellyn Smith, Esq., C.B.
Sir Alfred Bateman, K.C.M.G.	Sir Alfred L. Jones, K.C.M.G.
Sir John Cockburn, K.C.M.G.	Canon H. Scott Holland, M.A.
Sir Charles Follett, C.B., etc.	Dr. W. H. Gaskell, of Cambridge.
Sir Norman Lockyer, K.C.B., etc.	Evelyn Cecil, Esq., M.P.
Sir William White, K.C.B., etc.	A. Bonar Law, Esq., M.P.
The Rev. H. B. Gray.	Col. Sir C. M. Royds, C.B.
Professor E. B. Poulton, Oxford.	Sir Thomas Wrightson, Bart.
Lord Ridley, D.L.	Sir M. Mitchell-Thomson, Bart.
Sir Vincent Gaillard, D.L.	The Hon. Robert P. Porter.
Canon Lyttleton of Eton.	J. R. Heape, Esq., J.P.
Dr. Sir James Crichton-Browne, LL.D., F.R.S.	Professor P. J. Hartog.
Professor H. E. Armstrong.	Rev. Canon A. W. Jephson, M.A.
Professor W. E. Ayrton.	Rev. Frank Johnson.
A. W. Black, Esq., M.P.	Arthur G. Lupton, Esq.
Sir J. W. Benn, M.P.	Professor R. Meldola.
Dr. J. Rose Bradford.	Sir Philip Magnus.
R. Blair, Esq.	Professor Magnus Maclean.
	Dr. T. J. Macnamara, M.P.

H. Coward, Esq.
G. M. Chamberlin, Esq.
Walter Emden, Esq.
The Rev. Prof. T. A. Finlay.
W. C. Fletcher, Esq., M.A.
Dr. T. Gregory Foster.
R. S. Fraser, Esq.
Dr. William Garnett.
H. T. Gerrans, Esq.
Sir W. J. Goulding, Bart.
Edward A. Goulding, Esq., M.P.

T. H. Openshaw, Esq., C.M.G.
The Rev. T. L. Papillon, M.A.
H. R. Rathbone, Esq.
Prof. W. Ripper, M.I.C.E.
Charles Rowley, Esq., M.A.
E. A. Ridsdale, Esq., M.P.
A. Rendall, Esq., M.P.
A. E. Spender, Esq.
A. J. Shephard, Esq.
Mrs. Sadler.
John Whitburn, Esq.

LOCAL COMMITTEES.

2. In each city or town visited by the teachers a local committee has been formed, generally under the chairmanship of a prominent member of the Board of Education. These local committees have been formed in large part with the assistance of the English teachers who visited the United States some years ago, and will be animated by the desire to reciprocate as far as possible the courtesies shown to the English teachers when they visited the United States. These committees have agreed to act as advisers to the American teachers, to introduce them in the schools to be visited, to procure in advance accommodations in boarding houses or hotels, as they may request, to meet the teachers if desired on arrival, and to minister to their comfort in every way.

ARRIVAL.

3. At each of the ports of arrival (Plymouth, Southampton, Liverpool, and Dover) the teachers will be met by a member of the Reception Committee, with whom they can arrange immediately for their accommodations at that port. With these committees they can consult in regard to the schools to be visited and plan out a definite schedule for the trip. The committees will have available specimen routes of travel to meet the needs of the different classes of teachers who may participate in the visit. When the schedule has been determined upon, teachers should then communicate with the Chairman of the local committees at the several points to be visited, in order that these committees can arrange in advance such accommodations in boarding houses or hotels, as may be desired. While awaiting information

from the committees in the several points to be visited, the schools at the port of arrival can be visited as well as schools in adjoining towns which are easily accessible. Those persons arriving at Liverpool might very well make that city their headquarters for a week or more, in the meantime visiting schools in Manchester and other nearby cities.

VISITS TO SCHOOLS.

4. Arrangements have already been made by Mr. Mosely for visiting a large number of schools. The authorities at these schools will throw open their classes to the visits of teachers and accord the latter the fullest opportunity of inspecting the work of the schools. The preliminary schedule follows:

A. *Universities and University Colleges.*

University of Oxford.
University of Cambridge.
University of Durham and Armstrong College, Newcastle-on-Tyne.
University of London.
University of Manchester.*
University of Liverpool.*
University of Leeds.*
University of Birmingham.*
University of Sheffield.*
University College, Bristol.*
University College, Nottingham.*
University College, Reading.*
Albert Memorial College, Exeter.*
University College of Wales, Aberystwyth.*
University College of North Wales, Bangor.*
University College of South Wales, Cardiff and Monmouthshire.*

A2. *University Education for Women.*

At Oxford:

Somerville College.
Lady Margaret Hall.
St. Hugh's Hall.

At Cambridge:

Newnham College.
Girton College.

In London:

Bedford College.
Holloway College, Egham.

And at the other Universities marked with an asterisk on List A.

B. Higher Technical Education.

The Universities and University Colleges, as above.
The Imperial College of Science and Technology, London.
The School of Mines.
The City and Guilds of London Institute, South Kensington and Finsbury.
The London Polytechnics.
Manchester Municipal School of Technology. (In part connection with University of Manchester.)
Bradford Technical College.
Bristol Merchant Venturers' College.
West Ham Municipal Technical Institute.
Technical Department, University of Sheffield.
Mining School, Camborne.
Municipal Technical Institute, Belfast.
Municipal Technical School, Birmingham.
Central School of Art, Birmingham.
Jewellers' School, Birmingham.
Glasgow and West Scotland Technical College, Glasgow.

C. Secondary Education.

Boys.

The great public schools.

Eton College.	Berkhamsted School.
Harrow School.	Bromsgrove School.
Rugby School.	Christ's Hospital School.
Marlborough School.	The Oratory, Birmingham.
Westminster School.	The Leys, Cambridge.
St. Paul's School.	Bootham School, York.
Shrewsbury School.	(Society of Friends.)
Charterhouse School.	Bedford High School.
Clifton School	Sedbergh School.
Malvern School.	Highgate School.
Repton School.	Holt, Norfolk.
Cheltenham School.	Radley School.
Tonbridge School.	Stonyhurst School.
Haileybury School.	Mill Hill School.
Uppingham School.	Lancing College.
Winchester College.	

The great majority of the pupils in the above are boarders.
King's College School, Wimbledon.

Dulwich College.	Sheffield, King Edward VII.
City of London School.	School.
Manchester Grammar School.	Liverpool College, Lodge Lane.
Bradford Grammar School.	Liverpool, Institute.
Nottingham High School.	Bristol Grammar School.
University College School, Gower Street.	Durham Grammar School.
	Bath College.

Merchant Taylor's School.
St. Olave's School, Southwark.
King Edward's School,
Birmingham.

Dover College.
Owen's School, Islington.
Chigwell School, Essex.

In Wales:

Llandoverly.
And the County Schools.

In Scotland:

Edinburgh High School.	Fettes (Edinburgh).
Edinburgh Academy.	Glenalmond (Perthshire).
Glasgow High School.	Loretto (Musselburgh).

The Preparatory Schools for Boys:

Selection not yet completed.

Girls.

Public Schools.

Cheltenham Ladies' College.
North London Collegiate School for Girls.
St. Paul's School for Girls.
Wycombe Abbey.
Roedean.
Prior's Field Godalming.
Manchester High School for Girls.
Bradford Girls' Grammar School.
Bedford High School for Girls.
Clifton High School.
Leeds High School for Girls.
The Schools of the Girls' Public Day School Trust.
The Schools of the Church School Company.
The Mount, York. (Society of Friends.)
Convent of Notre Dame, Mount Pleasant, Liverpool.

Municipal Secondary Schools.

(Boys and Girls taught separately, or in some cases together.)

Municipal Secondary School, Manchester.
Municipal Secondary School, Brighton.
Carlton Street Secondary School, Bradford.
Glossop Technical and Secondary School. (Co-ed.)
Liverpool Institute.
Sheffield Central Secondary School.
Southend Secondary and Technical School. (Co-ed.)
East Ham Secondary and Technical School. (Co-ed.)

Other Co-educational Schools.

Bedales, Petersfield.
St. George's, Harpenden.
Sidcot School, Somerset. (Society of Friends.)
Keswick School.
Bakewell, Lady Manners School.
King Alfred School, Hampstead.

Cities and Towns suggested as centers for the study of the local organization of different grades of education,—elementary, higher elementary, etc.

London,	Bolton,	Scarborough,
Birmingham,	Rochdale,	Norwich,
Nottingham,	Newcastle-on-Tyne,	Swindon,
Leicester,	Bristol,	Crewe,
Sheffield,	Lincoln,	Barry,
Leeds,	Plymouth,	Grimsby,
Bradford,	Exeter,	Hull,
Halifax,	Portsmouth,	Cardiff.
Manchester,	Brighton,	
Liverpool,	Bootle,	

Suggested Counties in which to study organization of schools of all grades, and teaching methods.

Northumberland,	Cumberland,	Lancashire,
Cheshire,	Yorks (West Riding),	Leicestershire,
Bedfordshire,	Gloucestershire,	Essex,
Cambridgeshire,	Surrey,	
and in Wales—several, e. g., Carnarvon, Cardigan, Glemorgan.		

For teaching of young children.

(Besides other schools in cities mentioned above.)

Froebel Institute, Talgarth Road, West Kensington.

Sesame House, Acacia Road, St. John's Wood.

Bedford Kindergarten and Training College.

Cheltenham Ladies' College.

Training Colleges. (Normal Schools and Colleges.)

L. C. C., Southampton Row.

Goldsmith's Institute.

Training Department, King's College, London.

Training Department, Bedford College.

University of Manchester.

University of Birmingham.

University of Leeds.

University of Liverpool.

University of Oxford.

University of Cambridge.

University of Sheffield.

University College, Cardiff.

University College, Aberystwyth.

University College, Bangor.

University College, Reading.

Cambridge Training College. (Women.)

Men.

Borough Road College, Isleworth.
St. Mark's, Chelsea.
Battersea.
Westminster.
Cheltenham.

Women.

Edge Hill, Liverpool.
Warrington.
Stockwell.
Saffron Walden.
Darlington.
Salisbury.
Whitelands, Chelsea.
St. Gabriel's.

Schools of Art.

Central School of Arts and Crafts, London.
Slade School.
Liverpool School of Art.
Birmingham School of Art.
Manchester School of Art.
Sheffield School of Art.
Royal Drawing Society, London.
Camberwell School of Arts and Crafts.
Battersea Polytechnic School of Art.
Royal Female School of Art, London.
Polytechnic School of Art, London.
St. Martin's School of Art, London.
School of Art, Kennington, London.
School of Art Woodcarving, London.
Royal College of Arts, London.
School of Art, Edinburgh.
School of Art, Glasgow.
School of Art, Belfast.
Metropolitan School of Art, Dublin.
Jewellers' School of Art, Birmingham.
School of Art, University College, Reading.
Leicester School of Art.
School of Art, Armstrong College, Newcastle-on-Tyne.
School of Art, Nottingham.
School of Art, Burslem.
School of Art, Brighton.
School of Art, Bradford.
School of Art, Leeds.

Evening Schools and Classes.

Many of the towns and counties mentioned above and interesting in this connection, see especially:

London.	Halifax.
Manchester.	Widnes.
Leeds.	Rochdale.
Newcastle-on-Tyne.	Cambridgeshire.

Adult Schools.

Birmingham and several other centers.

Agricultural Colleges.

South Eastern College, Wye, Kent.
Cambridge University.
Reading University College.
Harper Adams Agricultural College.
Armstrong College, Newcastle-on-Tyne.
County Technical Laboratories, Chelmsford.
Swanley Horticulural College, Kent.
Cirencester Royal Agricultural College.
Etc.

Industrial or Reformatory Schools.

Now under arrangement.

Special Schools for Defective Children in:

London,
Manchester,
Leeds,
Liverpool,
And Particularly Sandlebridge School, Cheshire.

Domestic Economy Schools.

In several centers.

Other schools will be added to it from time to time, and teachers will be notified before sailing of the complete list. In case teachers desire to visit any particular school not mentioned upon the final list, the local committees will be glad to place themselves in communication with the authorities of such schools and secure permission to visit them.

ENTERTAINMENT.

5. Arrangements will be made by the school authorities to hold frequent conferences during the period of the Teachers' Visit for the teachers of the different localities. The American teachers will be invited to attend these conferences and will thus have an opportunity of meeting the corps of teachers and becom-

ing familiar with the school problems which are under discussion in the United Kingdom. The visiting teachers will doubtless be expected to give some account of their own schools in the United States at such meetings.

Members of the local committee, and other persons of social prominence in the several localities, will be at home for afternoon tea and will give a cordial welcome to the American teachers, who will be introduced through the local committees, and who will thus be afforded a glimpse of the home life of their English hosts.

EXPENSES.

6. The cost of ocean transportation is stated in our circular of February, 1908, at \$25.00 for the round trip for those who travel under the special arrangements which are offered to teachers through the courtesy of The International Mercantile Marine Company. This is exclusive of the customary tips, for which \$6.00 should be allowed. For travel in the United Kingdom an allowance of \$25.00 will be ample. The cost of board will depend entirely upon whether the teachers go to boarding houses or hotels. Very comfortable accommodations at the former can be secured throughout England at \$1.50 a day, and in no case should these boarding accommodations exceed \$2.00 per day. At the smaller hotels the cost will range, according to accommodations, from \$2.50 to \$4.50 a day. Hotels do not in England make a rate by the day, but furnish rooms with light and attendance at a charge of from 75 cents to \$1.50; while all meals are paid for separately. Without making any allowance whatsoever for purchases while in England, it will be seen that the cost from the time of leaving the United States to the time of arrival, calculating a stay of four weeks in England, can be brought within \$110.00 by those who exercise the greatest economy. An allowance of \$150.00 would permit the visitor to travel very comfortably, while \$200.00 could be deemed a very liberal estimate of the expense.

It should be remembered that in making these estimates, no allowance is made for the cost, which the teacher will incur, from his residence to the port of sailing, and from the port of arrival in the United States back to his residence. This must be calculated by each person in accordance with his own needs.

ADVICE TO TRAVELERS.

7. Mr. Mosely has kindly prepared a memorandum giving a large number of hints to the travelers in the United Kingdom which will prove of inestimable value to those participating in the trip.

Too much stress cannot be laid upon what Mr. Mosely has to say about tips. They are an established custom in England, to which travelers must conform if they value their comfort. A failure to tip when it is expected is liable to cause great discomfort and annoyance. American travelers are prone to overdo it. Tips beyond the customary standards procure no extra advantages and in the long run are very costly.

GENERAL INFORMATION FOR VISITING TEACHERS.

A. Mr. Alfred Mosely will be happy to render all possible assistance to the teachers, and generally to look after their interests while in the United Kingdom. His address is Union Bank Buildings, Ely Place, Helbron, London E. C. (Registered telegraphic address "Blue bottle," London. Telephone call number, "9164 Central.")

B. EMBARKATION. When you go on board your steamer, see that all luggage which you will require in your cabin is brought there by your steward; and it is wise to unpack your immediate wants for the voyage before starting. Take in the cabin (which is small) only such things as will be required whilst crossing. Larger baggage must go in the hold and remain there during the voyage.

C. GRATUITIES ON BOARD. At the end of a voyage it is usual on the steamers to tip your bedroom steward or stewardess five shillings (or $1\frac{1}{4}$ dollars), being the usual sum for second-cabin passengers; the same to the steward who waits at table; two shillings each (say 50 cents) to the man who cleans your boots and to your bath attendant. You need not give more, or any other tips.

D. LUGGAGE. The British system as to luggage is entirely different from that of America. It is more convenient and cheaper for luggage to be taken with the traveler in a cab. There-

fore when moving from place to place your luggage is put on the cab with you, no charge being made for small pieces that can be taken inside, and only twopence (or 4 cents) each for those carried outside. Cab fares are as follows in London: Horse vehicles from place to place, station to docks, etc., one shilling (25 cents) for a distance not exceeding two miles, and sixpence (12 cents) per mile beyond, for either one or two persons. Motor "taxicabs" eightpence (16 cents) for the first mile, and twopence per additional quarter-mile for one or two persons. In provincial cities and towns the *usual* charge (including luggage) from house to railway station and *vice versa* is two shillings (2/, or 50 cents). In the event of any dispute with the cabman the station police will always tell you the correct fare to pay. On arrival at the station (the "depot") you first "book" (or buy your ticket) to where you desire to go, then see your luggage labeled and put into the train—the usual gratuity to the porter for such service being 2d (4 cents), or if you like, 3d (6 cents), the latter being considered fairly liberal. On the train reaching your destination you go at once to the luggage-van with a porter, whom you engage directly you alight; he will fetch you a cab and put on it your luggage, which you will have to claim with him at the van door or on the platform as it is put out of the train. You will give this porter a similar fee of two or three pence (4 cents or 6 cents).

E. CLOTHES. The English climate being damp and cold it is necessary to have warm clothing, not only for the voyage but for general wear whilst in England; where it is not customary to keep the houses, etc., hot, and Americans find the cold rooms and trains very trying. It is therefore essential for the ladies to bring good wraps, and the gentlemen warm, preferably long overcoats; and for all to have thick underwear. Although the temperature in England is much higher than that of the United States, the cold is more felt owing to its dampness and to the custom of keeping hotels, rooms, etc., cool and unheated.

F. RAILWAYS, TRAMS, AND CABS. It is usual in Great Britain to travel third class; the carriages being quite comfortable, and the fare for this accommodation being one penny (2 cents) per mile—sometimes less. Cabs may always be had

practically everywhere at reasonable fares (see D). Most towns have "trams" or "tramcars" (trolleys cars) for which the fares vary according to distance, usually from a penny (2 cents) to fourpence (8 cents). Horse buses, or motorbuses also ply in most towns and cities, at fares of one, two, or threepence, according to length of journey. Visitors should note that it is not customary in England to travel at night. The distances are comparatively short, so that the necessity does not arise as it does in America; therefore sleeping accommodation in the trains is provided practically only on the longer journeys, such as between London and Scotland. In these cases where sleepers (or sleeping cars as they are known in England) are run, an extra fee is charged for the use of them, varying in amount, but being, generally speaking, not so high as for the same service in America.

G. TIPS AND TIPPING. Tipping is much more in vogue than in America; porters, servants, and everyone, all hold out their hands for every service rendered. As to railway porters, see D. In the hotels or boarding houses it is usual to tip the servants who attend upon the visitor, according to the length of stay and services performed, from sixpence (12 cents) up to 2/- (50 cents), varying with the circumstances. When lunching out at restaurants of the ordinary type one gives the waiter 2d to 3d (4 cents or 6 cents), and in very high-class places—corresponding to Delmonico's or Sherry's—6d (12 cents). You will find your hands continually in your pocket for tips, so it is essential to know that the usual fees for small services are not more than 4 cents to 6 cents, as mentioned. Unless this customary standard be adhered to, traveling in England will be found more expensive than calculated.

H. COMMITTEES TO LOOK AFTER VISITORS. In each town and city (wherever possible) committees will be formed to take care of the teachers, obtain their accommodation, advise them how to get about and what schools to see. (Note.—The term city is in England not applied to small centers with a few thousand inhabitants; but only to certain of the larger corporate towns and those possessing a cathedral.) As far as practicable the visitors on reaching England will be met at the

steamer by some member of the local committee, who will supply a list of boarding houses and hotels suitable to the individual needs. A syllabus will be supplied showing the various typical cities and towns that should be visited, and what to see in each; and in due course you will be advised with whom to communicate in various centers when announcing the day and hour of your intended arrival. It is necessary to bear in mind when writing to committees, etc., that three days at least should be allowed for answers to all letters bearing on arrival and accommodation. At a later date notices will be issued giving directions how to identify those appointed to meet you at the steamer, train, etc., with all other necessary information not given here.

I. BOARDING HOUSES AND HOTELS.. As far as possible the committees in the various cities and towns will reserve accommodations for teachers; but they will require notice beforehand of expected date of arrival, and the sum it is desired to pay. This latter in boarding houses may range, roughly, from about six shillings per day to 8 shillings (\$2.00) per day, and good quarters may be had at the smaller hotels at about the following figures: Bedroom with attendance and lighting from 3/- to 6/- (say 75 cents to \$1.50) per night, according to the style of the hotel and the class of room occupied. In England bath rooms are seldom attached to bedrooms, and when that is the case are highly charged for. Baths when had are an extra, usually 6d (12 cents) for cold, and one shilling (25 cents) for hot. The price of meals varies according to what you order and consume; speaking roundly, breakfasts range from 1/6 to 3/ (say 37 cents to 75 cents); whilst dinners vary from 2/6 to 4/ (60 cents to \$1.00); luncheons from 1 shilling (25 cents) upward. It is usual to put one's boots outside the room door when retiring for the night, for them to be cleaned—for this there is no charge.

K. MONEY AND VALUABLES. Any valuables you may desire stored may be handed to Mr. Mosely at his office in a sealed parcel, which he will be happy to keep in his safe, giving a receipt therefor. Hotel proprietors will do the same; but unless articles of value are thus deposited with them they are not held responsible. Valuables left in your room at a hotel are at your own risk.

You should provide yourself with about \$25.00 in English money for your immediate use on arrival. This can be obtained at the steamship office before sailing or by exchanging with the purser on board the steamer. It will probably be most convenient to carry all your funds in cash, exchanging it for English money before starting on the steamer or after arrival. Those who dislike carrying cash can obtain letters of credit, drafts, or travelers' checks. The last named are most convenient because the identification is simpler than with other forms of credit. Letters of credit and drafts are sold by banks usually at a charge of one per cent on the face value of the letter or draft. Letters of credit are not issued for less than \$500. Travelers' checks are issued by steamship and express companies at a charge of one-half of one per cent. The International Mercantile Marine Company which issues such checks has generously agreed to furnish them to teachers taking part in the visit at their face value, without the usual commission. Further information can be obtained from the Travelers' Check Department of the International Mercantile Marine Company, 9 Broadway, New York City.

English money is of the following denominations:

Farthing or $\frac{1}{4}$ d. ($\frac{1}{2}$ c.), little used except in drapery shops, dry goods stores.

Halfpenny, $\frac{1}{2}$ d. (called "ha'penny") = 1c.

Penny or 1d. (= 2c.). The foregoing are bronze coins.

The penny to a large extent coincides with the United States nickel, being in general use.

The silver coins are: Threepenny piece (6 cents); sixpence (12 cents); Shilling or 1/- (= the U. S. A. "quarter"); florin or two-shilling piece (one-half dollar), of which several designs with a trifling difference in size are in circulation; half-crown or two-and-sixpence (= about 60 cents), a rather embarrassing coin to strangers; also the double florin or four-shilling piece, and the crown or five-shilling piece, both but little used, and corresponding roughly to \$1 and \$1.25. The gold coins are the half-sovereign, 10/- (= \$2.50), and the sovereign or pound, £1, corresponding roundly to \$5.00. The Bank of England notes are for £5, £10, £20, £50 and upwards, or say \$25, \$50, \$100, and \$250.

L. NEWSPAPERS. These are either "ha'penny" (1 cent) or "penny" (2 cents) in all towns; practically the only exception being the London "Times," which costs 3d. They may be obtained at all hotels and stations at the published prices—not an enhanced price as is the case in America.

M. WASHING (of linen)—or as termed in America, "Laundry." This will be found probably cheaper than in the States, though perhaps not usually quite so well done. Both hotels and boarding houses require longer to complete, three days being a *minimum*; and it is generally more before one can rely on the washing being sent back. It is necessary to state quite definitely (when it is taken away) what day and time you *must* have it returned.

N. LETTERS AND TELEGRAMS may be sent to the care of Mr. Alfred Mosely, at his office (see paragraph A, and from thence will be forwarded to wherever the addressee may be). To ensure this being done, all changes of address must be regularly notified to Mr. Mosely, always allowing three days for getting a reply. When money or valuables are sent by post the letter or parcel should be registered, the fee being 2d, always pronounced "tuppence, (4 cents) extra. POSTAGE stamps are obtainable everywhere. Letter postage is a uniform "penny" (2 cents) throughout the United Kingdom, for any weight up to 4 ounces, with another $\frac{1}{2}$ d for each extra 2 ounces. Newspapers, in the United Kingdom, $\frac{1}{2}$ d (ha'penny or 1 cent) on each copy, whether posted singly or in one cover with others. Parcel post throughout the United Kingdom, 3d (6 cents), the first pound, 2 pounds 4d, 3 pounds 5d, 7 pounds 7d, 8 pounds 8d, 9 pounds 9d, 10 pounds 10d, 11 pounds, 11d (the maximum). This will be found the cheapest way of sending small parcels, especially for long distances. Please note, by the way, that in England one does not speak of "shipping" parcels by railway or carrier, etc.; people would conclude (naturally) that anything "shipped" is to travel oversea, i. e., by a ship. Letters, etc., entrusted to the postoffice are also said to be "posted," not "mailed." Postage to the Continent and America is $2\frac{1}{2}$ d (5 cents) the first ounce for letters, and $1\frac{1}{2}$ d for each additional ounce. Newspapers to any parts outside the United Kingdom, $\frac{1}{2}$ d (1 cent)

per two ounces. TELEGRAMS are charged at a uniform rate in the United Kingdom, viz., sixpence for a minimum of twelve words, and a halfpenny per word additional. Addresses are charged for. Two hours is sufficient to allow for the message and its reply—often the time occupied is much less than this. Cables from England to America cost one shilling per word (address counted—not free of charge) which includes transmission over British inland lines, and exclusive of certain additional charges in the States. TELEPHONES are not used so much as in the States; though within the “London area” there are about 4,500 “call offices” open to the public at a fee of 2d (= 4 cents) for local calls within that area, a distance of say about ten to twelve miles radius from the city. Over the trunk lines (equivalent to the U. S. “long distance”) the charge varies, roughly about 50 miles for 6d (say 12 cents) with reduced fees at night.

O. NOMENCLATURE. Many terms in connection with schools and education will be found to bear a different meaning in England, of which the following are some examples:

<i>British.</i>	<i>American.</i>
Council School (all ages up to 14 = years).	Public School, Primary School and Grammar School.
Voluntary Schools — “National,” “British,” etc.	There is nothing to correspond exactly with these in America.

The majority are church schools; and it should be noted that the name “National” does *not* imply erection by public funds. They were instituted long before the passing of the 1870 Education Act (inaugurating public schools of primary character) through the “National Society for Education of the Poor in the Principles of the Church of England,” the cost being met by bequests and subscriptions. They now receive Government “grants-in-aid” varying according to their efficiency; but are still in large measure supported by the voluntary contributions of Church people. In many of the smaller towns and villages these so-called “National” schools are the only ones.

Public Secondary Schools.	= High Schools.
Grammar Schools.	= a “High School” of private foundation.

Board of Education Inspector.
Local Authority Inspector.
Secondary School Examiner.

Optional Subjects.

Oral Lesson.

Recitation.

University Men.

Ex-University Men.

"Graduate."

Degrees.

These correspond roughly to the U. S. "School Superintendent," and are appointed by Board of Education (the central authority) or other bodies as indicated by name.

= Electives.

= (similar to) "Recitation."

= the repetition of a passage of prose of poetry learned by heart.

= College Men.

= Alumni.

= This term is in the United Kingdom confined to Universities and does not apply to schools in general, where scholars are said to "pass" their examination.

= (the same), but are much more exclusive, and only granted by the great Universities. Others would not be recognized.

All correspondence should be addressed to

ROLAND P. FALKNER,

Executive Secretary,

281 Fourth Avenue,

New York, N. Y.

The Teachers' Trip

to

Great Britain

THIS CIRCULAR SHOULD BE CAREFULLY PRESERVED

You have been assigned to the Steamship

of the line.

She leaves

on at o'clock.

Your fare for the return voyage will be \$25. You must send \$5 for a deposit when you forward the acceptance of the enclosed certificate to the Steamship Co. You pay the balance, \$20, before sailing, and get your

return ticket. This had better be paid at the head office of the steamship company in Montreal.

The R. R. companies have agreed to a rate of \$7.05 for the going trip from Toronto, whether the sailing be from Montreal, Quebec, Halifax, Portland or St. John. The return rate is not yet fixed, but it will not exceed the going rate. The rates from other points will be fixed at an early date, and the R. R. agents in your locality will be notified. The return fare will be paid when you are on your homeward journey. Keep the return certificate carefully.

If you will ask at the office of the Steamship Company on your arrival (Liverpool or Glasgow) you will receive a circular making recommendations regarding the very best way to spend your month in Great Britain, not only during school days, but for week-ends. Mr. Hughes has outlined a daily programme which includes the best schools and at the same time a great many of the most interesting places, and the finest scenery of Wales, England and Scotland, without going over the same ground unnecessarily. The week-ends include Paris, Oxford, Winchester, Stratford-on-Avon, the Trossachs and other points of special interest. Arrangements will be made, and explained in the circular, for board in each place, and for a reception on arrival by some local representative to give all necessary information.

Bring the circular issued in the United States, a copy of which is sent to you herewith, and study it carefully.

Arrange with your bank or with the Dominion or American Express Co. for the money you are to take with you. Get some gold for use on the steamship and have enough for use on your arrival. The purser will exchange the small amount of Canadian money you may have with you when you reach the boat. It will cost you a little over \$100 probably while in England. Bring as much as you can up to say \$200, in case you wish extras.

Do not fail to reach your sailing port in time. Go aboard the steamer the night before her sailing date.

Take warm clothing for the Atlantic. You may leave what you do not require in charge of the Steamship Co. on arrival.



Visit of Canadian Teachers to England.

Mr. Alfred Mosely, C.M.G., of London, England, has succeeded in making arrangements with the Canadian Steamship Companies to take three hundred Canadian teachers to England and back for \$25.00 each, in order that they may study the school systems and the methods of teaching in England, Scotland, and Wales. Passages at this rate are available between September 1, 1908, to February 1, 1909.

1. The project of the visit of the Canadian teachers to Great Britain has awakened widespread interest and support throughout the Old Country. Mr. Mosely has associated with himself as a general reception committee a large number of influential persons throughout the United Kingdom, representing the various organizations and institutions and social groups which are associated there with the cause of education, and indeed with all the forces of social welfare. The co-operation of the leading men of England as represented by this committee, insures that the visiting teachers will receive a cordial welcome wherever they go, and that whatever can be done for their comfort and for the success of the enterprise will be done. The general committee to arrange for the reception of the teachers is composed of many of the leading men and women of England.

2. In each city or town visited by the teachers a local committee has been formed, generally under the chairmanship of a prominent member of the Board of Education. These local committees have been formed in large part with the assistance of the English teachers who visited Canada a year ago, and will be animated by the desire to reciprocate as far as possible the courtesies shown to the British teachers when they visited Canada. These committees have agreed to act as advisers to the Canadian teachers, to introduce them in the schools to be visited, to procure in advance accommodation in boarding houses or hotels, as they may request, to meet the teachers if desired on arrival, and to minister to their comfort in every way.

3. At Liverpool the teachers will be met by a member of the reception committee. With this committee they can consult in regard to the schools to be visited and plan out a definite schedule for the trip. Canadian teachers will be cordially welcomed in the universities, the colleges, the great public schools, such as Eton, Winchester, etc., the secondary schools, the technical schools, the art schools, and the best elementary schools of the old land.

4. Committees have already been formed to receive the visitors socially, and to show them the leading features of each place visited.

Throughout England, Scotland, and Wales, these committees are already planning to make the visit of Canadian teachers pleasant as well as profitable.

5. The total expense of the trip, allowing a month in the old country, need not exceed \$125.00. \$200.00 will make liberal provision for extra purchases as well as for the necessary expenses. The steamship travel will be in second cabin, but this accommodation is now as good as first class was a few years ago.

6. About two hundred teachers may go from Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. Opportunity will be given to send from each of the five Provinces in proportion to the number of teachers in each Province. If any Province does not send its proportional number the vacancies will be filled from the applicants from other Provinces.

7. Mr. Mosely's plan is to have the teachers who go chosen by the Boards of Education, so that the teachers who hold most important positions may be sent in order that the best results may be secured for Canada and for the Empire. When applications are sent from any city or town it is important that the teachers be numbered in the order in which the Board of Education would like to have the applicants sent, so that the committee of arrangements may be able to choose wisely in case all can not be sent. Inspectors of schools may go if they wish to do so, by arrangement with the proper authorities.

8. Applications should be made to the undersigned through the Boards of Education, and not by teachers individually. Applications should be made not later than June 10th from Ontario.

9. It is to be hoped that Canadian Boards of Education will pay the salaries of the teachers while away, as if they were on duty, and pay the necessary substitute teachers, as was done by the British School Boards last year.

10 In some cases in England and Wales public spirited men of means gave the teachers from their county or district a handsome gift in money to aid in paying their expenses. This may be done in Canada.

R. A. PYNE,
Minister of Education.

Toronto, 11th May, 1908.

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